CITY OF HAYWARD

AGENDA REPORT

AGENDA DATE 01/14/03

AGENDA ITEM 7

WORK SESSION ITEM _____

TO: Mayor and City Council

FROM: Director of Public Works

SUBJECT: Water Pollution Control Facility Improvements, Phase I – Approval of Certain Actions Needed to Proceed with Application for State Revolving Fund Loan for Construction of Wastewater Facilities

RECOMMENDATION:

It is recommended that the City Council adopt the attached resolutions, which:

1. Adopt the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the Water Pollution Control Facility (WPCF) improvements;
2. Approve the WPCF improvement project as defined in the mitigated negative declaration;
3. Authorize the City Manager to submit an application to the State Revolving Fund for the Construction of Wastewater Treatment Facilities, not to exceed $33,000,000;
4. Authorize the City to contribute matching funds in the amount of 16.667 percent of the eligible project costs (or approximately $5,500,000) for the WPCF improvements; and
5. Expand the purpose of the sewer service charge to include the repayment of the WPCF Improvement Project State Revolving Fund Loan.

DISCUSSION:

At the time that the current Capital Improvement Program was approved, and during the selection of the consultant for design of the Water Pollution Control Facility (WPCF), the City Council was informed of the need to invest significantly in upgrading the WPCF. As a brief overview, the WPCF is expected to treat the influent wastewater to secondary treatment standards as specified in the East Bay Dischargers Authority's NPDES Permit, of which the City is a member. The biological treatment technology in place at the WPCF is a one-of-a-kind combination process of a trickling filter (TF) followed by a fluidized bed reactor (FBR). The FBR system was new and innovative technology selected in the early 1980s and, as such, was primarily funded through federal grants. It has not performed as expected, and it is unable to work efficiently and reliably to meet the City's needs, even after considerable modifications and repairs were made to the system. Subsequently, the FBR was taken out of service, and up until the mid 1990s, the TF alone was able to perform adequate secondary treatment process, due to lower flows and fewer high-strength-waste industries in Hayward. A WPCF Master Plan, prepared by Brown and Caldwell Environmental Engineering and Consulting, concluded that, in the future, the TF could not provide complete treatment by itself and that the FBR is

not able to provide the necessary additional treatment. The Master Plan also identified other process deficiencies that would hinder the City's ability to meet its future treatment demands and recommended certain improvements to enhance the WPCF's reliability and redundancy to meet the City's treatment needs in 2020 at the level of development envisioned in the City's General Plan. Recommended improvements included a new trickling filter, additional final clarifier capacity, replacement of FBR with solids contact tanks, and sludge handling system.

In December 2001, the City Council approved the execution of an agreement with Brown and Caldwell Engineering to prepare plans and specifications to construct Phase I improvements of the WPCF. The design work is currently in progress, and it is anticipated that construction will begin in fall of 2003.

Phase I Project Description

The Master Plan identified all improvements associated with resolving wastewater treatment deficiencies; however, the overall WPCF improvement program has been divided into two distinct phases. Phase I will correct the major performance deficiencies that presently exist and provide needed process redundancy. These projects must be completed before the second phase of improvements can be implemented. Phase I is comprised of the following specific projects, which are currently under design:

- Construction of a second TF to increase treatment reliability and odor control measures for the existing TF;
- Construction of two new final clarifiers to replace the existing ineffective final clarifier;
- Construction of a solids contact tank;
- Construction of solids thickening facilities; and
- Construction of a new control structure to direct influent flows to the existing primary clarifiers.

Subsequent Phase II Improvements

The remaining projects, known as Phase II, can be implemented once the Phase I improvements are constructed. These projects include enclosure of the chlorine contact and effluent channels, expansion of the flow equalization basin and upgrade of the plant washwater. Under the most optimistic scenario, design for these projects would get underway in FY 2005-06. The estimated costs for Phase II, as reflected in the current Capital Improvement Program, total about $9.5 million, but these estimates are very preliminary and subject to change as the scope of the projects is further defined. It is a certainty, however, that the costs for Phase II will be much lower than for Phase I. Upon completion of both phases, the WPCF will be a state-of the art facility that can serve the City's needs well through at least the 2020 planning horizon.

Environmental Review

Preparation of environmental documentation for Phase I improvements was included in the scope of work for the preparation of plans and specifications. An initial study of the WPCF

improvement project was prepared in accordance with California Environmental Quality Act (CEQA) provisions to review potential environmental impacts. It was determined that adoption of the attached Mitigated Negative Declaration is appropriate as all potentially significant impacts can be mitigated through proper design.

The proposed Mitigated Negative Declaration was posted and circulated for public review for a 30-day period. A notice was published in the *Daily Review.* In addition to the City's distribution, the proposed Mitigated Negative Declaration was forwarded by the State Water Resources Control Board (SWRCB) to appropriate federal agencies for review. As a potential funding agency for the construction of the WPCF facilities, the SWRCB consults directly with certain federal entities responsible for oversight of federal environmental regulations.

Following is a brief summary of the only comments received and staff's responses:

- The Alameda County Redevelopment Agency noted that the project site is adjacent to the Mount Eden sub-area of the Eden Redevelopment Project Area and asked the City to ensure that noise, odor and visual impacts of the proposed project do not hinder County development efforts. Staff believes that the mitigation measures identified in the proposed Negative Declaration addresses these concerns. Construction noise will be short term and controlled through noise abatement requirements of the City building permit. Ongoing operational noise from the additional facilities should not be perceptible to neighboring sites, as the equipment will be housed in enclosed buildings. The proposed improvements include a number of odor abatement measures for new facilities, as well as existing processes, so the project would result in a reduction of odor compared to the existing condition. Finally, visual impacts will be mitigated with consideration of architectural features that achieve a unified appearance and a common architectural style for the WPCF.

- The State Water Resources Control Board requested information regarding the project description and growth accommodation, conformity with the State Implementation Plan (SIP) for air quality, and impacts on biological resources. Staff confirmed to the State that the project does not provide for any increase in authorized wastewater discharge rates, but rather addresses the need for greater efficiencies and redundancies to reliably accommodate the City's projected 2020 needs. Regarding air quality planning, the project is consistent with the City's General Plan, which relies on the same U.S. Census and Association of Bay Area Governments population projections used for air quality planning. Thus the project is in conformance with the SIP. The State further requested copies of the data used to determine that the project would not have an adverse impact on biological resources. This information was sent to the State.

- The United States Fish and Wildlife Service concluded that the project would not adversely affect any federally endangered species.

The Initial Study, Negative Declaration, and Mitigation Monitoring and Reporting Program are attached. Chapter 1 contains a short introduction, and Chapter 2 describes the project components, project location, and project features that will minimize environmental impacts.

Chapters 5, 6 and 7 provide an environmental impact determination, list of references used, and a list of preparers, respectively.

The heart of the initial study, however, is found in Chapters 3 and 4, the environmental checklist and discussion of the checklist. The checklist in Chapter 3 lists possible impacts and rates the potential for such an impact, ranging from potentially significant to beneficial. A discussion of each possible impact is then provided in Chapter 4, using the same numbering sequence as the checklist. For example, the first general topic covered is Aesthetics, Section A, on Page 3-1. There are four potential impacts listed, 1 through 4. Beginning on Page 4-1, there is an impact analysis related to each of the four potential impacts and numbered in accordance with the checklist.

Funding Alternatives

The total cost of design, construction, and services during construction for Phase I WPCF improvements is expected to be about $33 million, including a 10 percent cost contingency. Staff has investigated funding alternatives, including issuance of municipal bonds and obtaining loans from the State. The State offers low-interest loans for wastewater treatment facilities construction and retrofit to public entities through the State Revolving Fund (SRF) for Construction of Wastewater Facilities. By contributing a portion of the construction costs, an agency can qualify for the most favorable SRF loan option, referred to by the State as a local match loan, which results in low overall financing costs. Since there are adequate funds available in the Sewer Improvement Fund to pay for a portion of the Phase II costs, staff recommends that the City apply for a SRF local match loan, not to exceed $33 million, to finance construction of the WPCF Phase I improvements.

Local Match Loans

Under the terms of a local match loan, the City must commit to a contribution of about 16.7 percent of the total project costs, approximately $5.5 million of the $33 million project. This amount of funding is currently available in the City's Capital Wastewater Funds. This local match is deducted from the $33 million loan, and the State provides the remaining $27.5 million. The repayment is then made on the total loan amount of $33 million in equal annual payments for a period of 20 years, with "zero interest." Since the repayment is made on the total project cost (the $27.5 million in State funds plus $5.5 million in local matching funds), the SRF loan will have an effective cost comparable to a less-than-2 percent interest rate. In comparison, the rate for open market financing would currently be 4 to 5 percent. The total cost of borrowing, including interest, is less than the open market municipal bond financing. This loan, combined with $5.5 million contributed by the City, is expected to cover the cost of Phase I construction. As noted earlier, the estimated costs for Phase II improvements are still preliminary, and it is premature to discuss a funding method until the costs are better known. It may be possible to pay for design and construction from available CIP fund balances; however, if available resources are not sufficient and should the SRF loans remain available in subsequent years, staff will study the feasibility of submitting another SRF loan application.

Impact of Loan on Sewer Service Charge

Repayment of the SRF loan will impact the sewer service charge, as would any borrowing mechanism used to finance the WPCF improvements. Preliminary estimates are that the debt service obligation may impact the rate by about 16 percent. This increase is anticipated to be phased in over several years to lessen the impact on the ratepayers. It should be noted that the size of the necessary rate increase with the SRF loan is about one-half of the percentage increase that would be needed to service a conventional debt from the open market. The City Council will be provided with a fuller discussion of rate impacts during budget discussions.

The State requires that, as part of the loan application, a dedicated source of revenue be identified to repay the loan. Federal law requires the City to fully recover the cost of providing wastewater collection and treatment services, including facility maintenance and replacement costs from users of the services. Each year, staff prepares a Sewer Revenue Program to identify service costs, including debt service obligations, and to ensure that costs are spread equitably among system users, based on use, so that one group of customers does not subsidize another. The Sewer Revenue Program results in recommended sewer service charges for residential, commercial, and industrial customers. The City Council is asked to approve a resolution expanding the use of the sewer service charge to include repayment of the loan.

Certain other documents, including a formal loan application, will need to be submitted to the State and all are available for review in the City Clerk's Office.

Prepared by:

FOR Alex Ameri, Deputy Director of Public Works/Utilities

Recommended by:

Dennis L. Butler, Director of Public Works

Approved by:

Jesús Armas, City Manager

Exhibits: A. Initial Study
B. Proposed Negative Declaration
C. Mitigation Monitoring and Reporting Program

Initial Study and Mitigated Negative Declaration

CITY OF
HAYWARD
HEART OF THE BAY

Water Pollution Control Facility Improvements Project

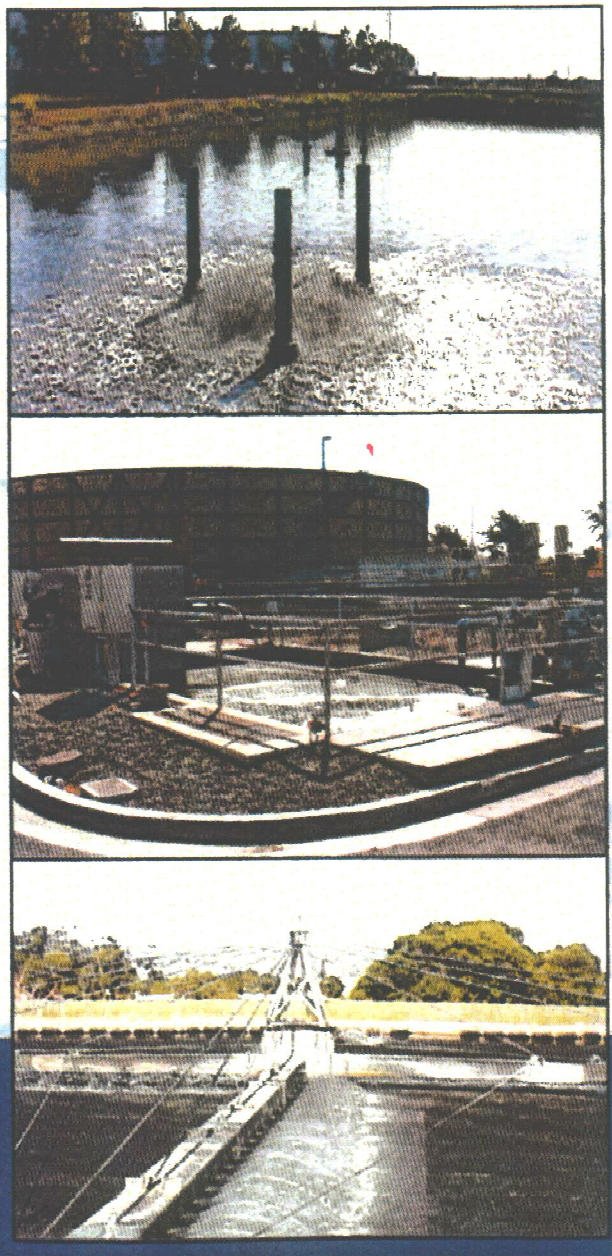

Exhibit A

NOVEMBER 2002

SCHEIDEGGER & ASSOCIATES
IN ASSOCIATION WITH
BROWN AND CALDWELL

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

Foldout figure follows page number indicated.

CHAPTER 1

INTRODUCTION

The City of Hayward (City) is embarking on a program to upgrade and modify their Water Pollution Control Facility (WPCF). The WPCF is located about ½-mile north of Highway 92, near the east shoreline of San Francisco Bay (Figure 1-1). As the introduction to this Initial Study (IS), this chapter provides a description of the existing WPCF, an overview of the origin of the project, and a statement as to the purpose of this IS.

WPCF DESCRIPTION

This section provides a description of the City's existing WPCF. Information is presented on plant configuration, treatment processes and support systems, effluent quality requirements, and plant performance.

Plant Configuration

The City's WPCF uses two biological treatment unit processes operating in series for secondary treatment. The plant is currently rated at an average dry weather flow (ADWF) capacity of 16.5 million gallons per day (mgd) and a peak daily flow capacity of 35 mgd, according to the East Bay Dischargers Authority's (EBDA) National Pollutant Discharge Elimination System (NPDES) discharge permit. The City is a member agency of EBDA and discharges wastewater under EBDA's NPDES Permit No. CA 0037869.

The WPCF was initially commissioned in 1954 with a rated capacity of 4.5 mgd, but soon surpassed the 4.5-mgd rated capacity and was expanded. The existing biological system was constructed in the early 1980s. The latest expansion to the plant occurred in 1996 with the addition of a new headworks facility. Design data for the major unit processes are shown in Appendix A. A flow schematic of the liquid treatment train is shown on Figure 1-2.

Preliminary and Primary Treatment

Preliminary and primary treatment at the WPCF consists of the headworks area, vacuators, and primary clarifiers. The headworks area was constructed as part of a 1996 project.

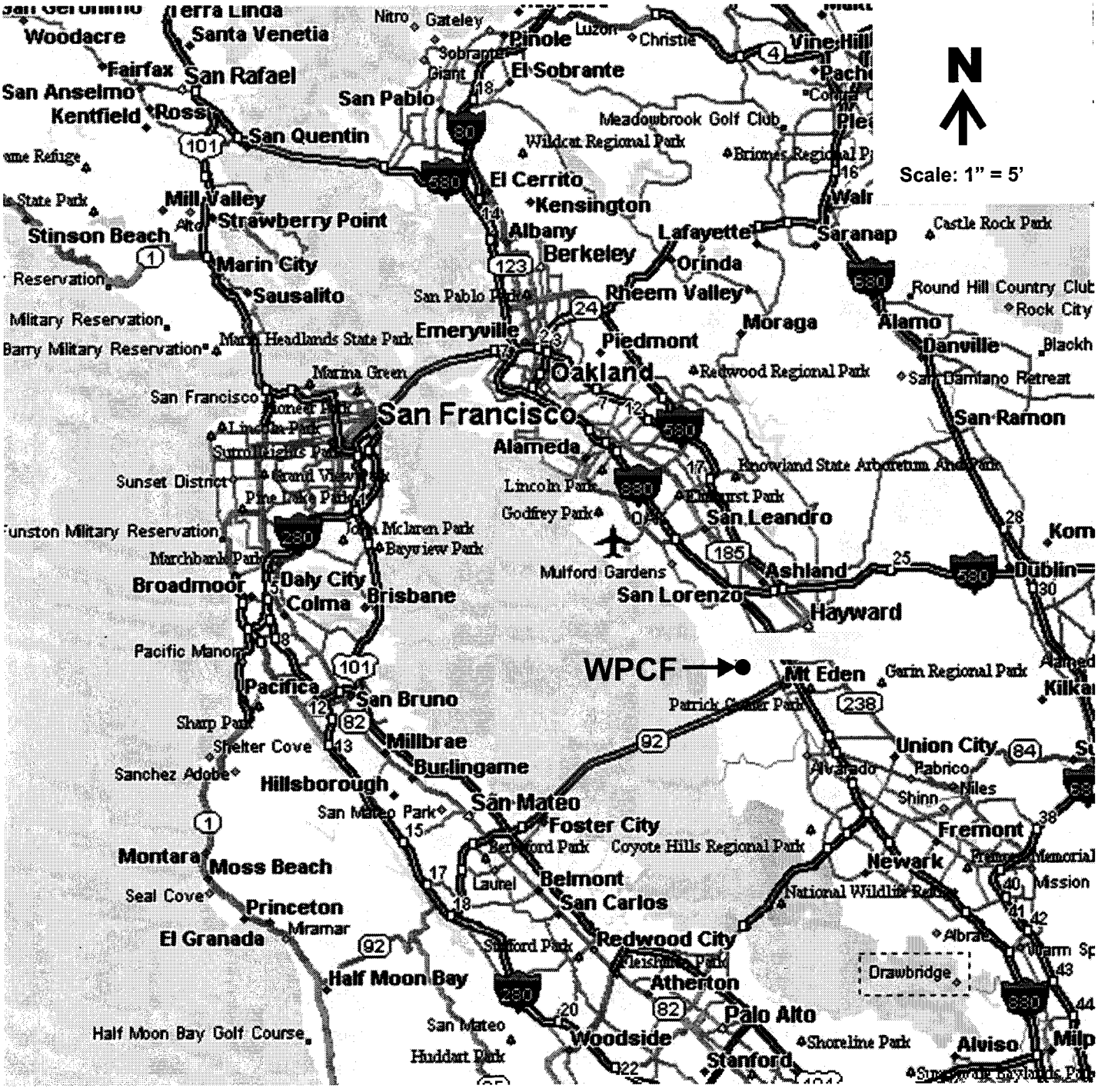

Figure 1-1. Regional Locations

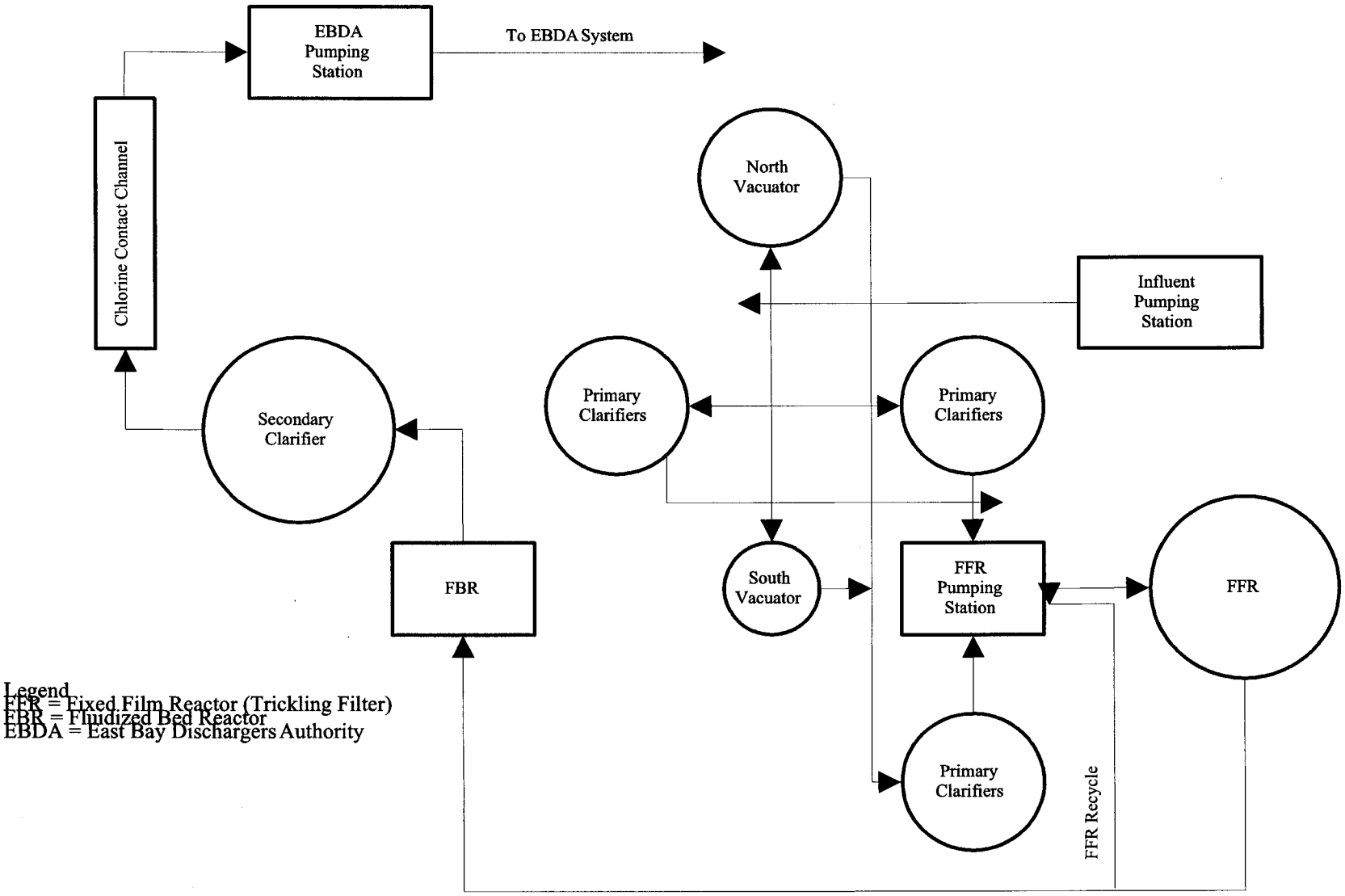

Figure 1.2. Existing Liquid Treatment Process Schematic

The plant has two vacuators. The units were originally constructed to remove floating material generated from local food processing industries. The primary function that the vacuators serve now is to remove scum and grit. The degritted bottom sludge and scum are pumped to the anaerobic digestion system.

Following the vacuators are three primary clarifiers. The function of the primary clarifiers is to remove settleable solids. The settleable solids are then pumped to the anaerobic digestion system. Floatable solids from the primary clarifiers are also collected and pumped to the anaerobic digestion system. The primary clarifier effluent is collected in the fixed film reactor pumping station prior to secondary treatment.

Secondary Treatment

The secondary treatment at the City's WPCF consists of one fixed film reactor (FFR or trickling filter), three fluidized bed reactors (FBR), and one final clarifier. The FFR comprises the first of two biological treatment components of the City's WPCF. The FFR system is followed by the FBR, which serves to polish the FFR effluent by removing soluble carbonaceous biochemical oxygen demand ($CBOD_5$). As a result of persistent and significant operational difficulties with the FBR process, it has been deemed a failed process and replacement of it is a fundamental driver for the proposed Improvements Project. The FFR and FBR were constructed in the early 1980s. The FBR was constructed using Innovative and Alternative grant monies form the U.S. Environmental Protection Agency.

Following the FBR is a single final clarifier. The function of the clarifier is to separate biological solids from the treated wastewater. Settled solids currently are returned to the primary clarifier influent where they are co-settled with primary sludge in the primary clarifiers. The clarifier effluent from the final clarifier gravity flows to the chlorine contact channel.

Sludge is anaerobically digested, then air dried. The dried sludge is used as a soil amendment for vegetation covering on an on-site closed landfill north of the WPCF oxidation ponds.

Disinfection and Disposal

There is no chlorine contact tank at the WPCF. Contact time for disinfection is provided by an earthen, 1,600-foot-long channel, which is about 4 feet deep. The channel conveys the chlorinated effluent to the EBDA Pump Station to the north, and then to the EBDA system. In the EBDA system, the combined treated wastewater from the City, San Leandro, Oro Loma/ Castro Valley, and Union Sanitary District are discharged via a deepwater outfall to lower San Francisco Bay, west of the Oakland Airport. The City has 240 acres of out-of-service oxidation ponds, which are used for emergency storage.

Effluent Quality Requirements

Besides Hayward, EBDA member agencies include San Leandro, Oro Loma Sanitary District, and Union Sanitary District. Two other agencies, Dublin San Ramon Services District (DSRSD) and Livermore, discharge their wastewater through the EBDA system. DSRSD and Livermore are member agencies of the Livermore-Amador Valley Water Management Agency (LAVWMA). The member agencies of EBDA and LAVWMA separately own and operate their own collection and treatment facilities.

EBDA and LAVWMA are Joint Exercise of Power Agencies (JEPA). JEPA delegates the authority and responsibility to EBDA to assure compliance of the NPDES permit. This power allows EBDA to consider the system as a whole system and monitor the operation of all EBDA member agency treatment facilities.

Plant Performance

The NPDES permit that the City operates under requires that the combined EBDA effluent discharge to the outfall meet $CBOD_5$ and total suspended solids (TSS) requirements of 25 and 30 milligrams per liter (mg/L), respectively. Permit limits are occasionally exceeded, which, as discussed in the following section, is the reason for the proposed WPCF Improvements Project. These exceedences, however, do not represent a permit violation for EBDA.

With increased organic loads to the WPCF, the City recognized the need to conduct a master planning effort. The primary goal of the Master Plan is to provide the steps necessary to progress from unreliable, maintenance-intensive treatment technology to sound, operator-friendly treatment technology that reliably meets future permit needs in a cost-effective manner.

ORIGIN OF THE PROJECT

The WPCF Improvements Project evolved from the City's WPCF Master Plan prepared by Brown and Caldwell.[1] Development of the Master Plan involved an analysis of the WPCF liquid treatment train to meet future needs.

WPCF Master Plan

In the past, the City relied on the dilution provided by the effluents of other EBDA members and the diversion to large storage ponds to deal with off-specification water produced by the WPCF. Wanting to abandon dilution and diversion for this purpose, the City directed Brown and Caldwell in preparing this Master Plan to plan for a facility to reliably meet the EBDA discharge requirements.

Alternatives Considered. The Master Plan provides an assessment of the dry-weather process capacity of the City's WPCF. In so doing, the Master Plan addresses the following questions:

1. What is the current performance of the WPCF and its unit processes?

2. What are the future performance requirements of the WPCF and its unit processes?

3. What process and hydraulic modifications are needed, if any, to reliably treat the permitted ADWF of 16.5 mgd?

The final alternatives developed and analyzed in the Master Plan are illustrated on Figures 1-3 through 1-5 and include the following:

- Alternative A, Modify Existing Process
- Alternative B, Convert to FFRs with Chemical Addition to Final Clarifiers
- Alternative C, Convert to Trickling Filter/Solids Contact (TF/SC) Process.

All three alternatives require improvements to certain facilities that are common to each alternative. These facilities are primary influent distribution improvements, one additional primary clarifier, primary clarifier effluent flow equalization expansion, one additional FFR, chlorine contact channel improvements, plant utility water system improvements, and sludge thickening, possibly via two dissolved air floatation thickeners.

With Alternative A, FBRs are retained in the treatment system to polish the effluent from the FFRs. Alternative B relies on the application of chemicals to the FFR underflow to accomplish the polishing necessary to meet effluent design objectives. With Alternative C, polishing the FFR underflow is achieved by biological means in a solid contact reactor and flocculator clarifier.

Alternatives Evaluation. The alternatives were evaluated in the Master Plan based on a variety of economic and non-economic considerations. The latter included process characteristics, operation and maintenance (O&M) characteristics, implementation, and environmental factors. Environmental factors, in turn, included the following:

- Visual
- Residuals management and undesired byproducts
- Energy demand
- Chemical consumption
- Public acceptance
- Odor
- Noise

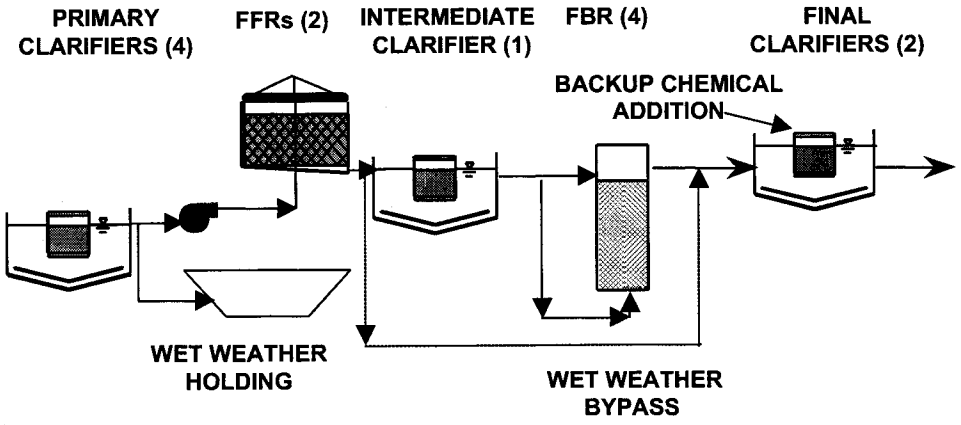

Figure 1-4. Alternative 1, Modify to Existing Process

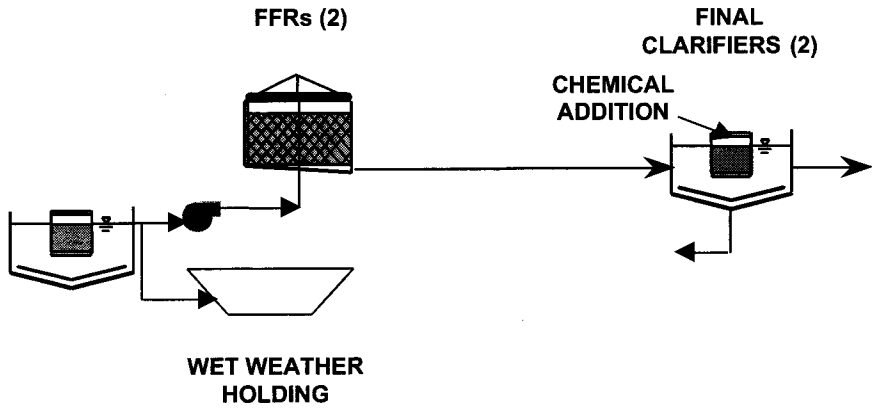

Figure 1-5. Alternative B, Convert to FFRs with Chemical Addition to Secondary Clarifiers

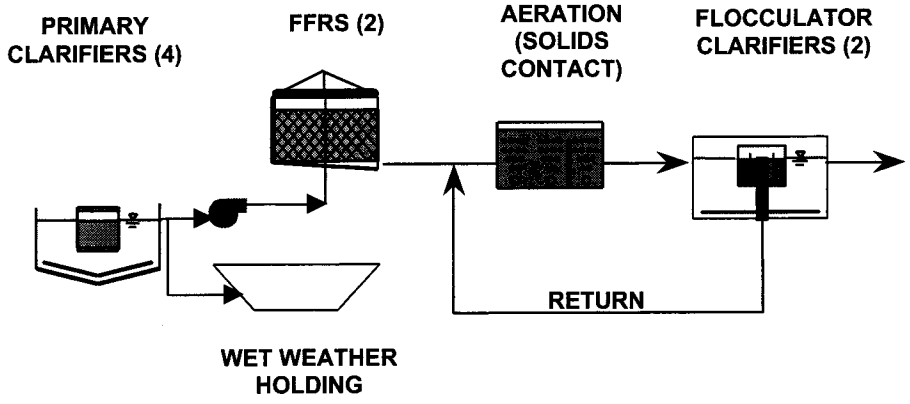

Figure 1-6. Alternative C, Convert to Trickling Filter/Solids Contact Process

Source: WPCF Master Plan, September 2001

Alternative C was selected as the preferred alternative. This alternative was mid-range in costs, but was already advantageous in the non-economic factor ratings as indicated in Table 1-1. Alternative C had the best rating for process factors, O&M factors, and environmental considerations. In addition, because of the stability of Alternative C, it was concluded in the Master Plan that it is better suited than Alternatives A and B for producing an effluent for advanced wastewater treatment like microfiltration and reverse osmosis.

PURPOSE OF INITIAL STUDY

Section 15063 of the California Environmental Quality Act (CEQA) provides for preparation of Initial Studies. The purposes of an IS are to:

1. Provide the lead agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration.

2. Enable an applicant or lead agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling a project to qualify for a Negative Declaration.

3. Assist in the preparation of an EIR if one is required.

4. Facilitate environmental assessment early in the design of a project.

5. Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.

6. Determine whether a previously prepared EIR could be used with the project.

The primary sources of information for this IS are the City's WPCF Master Plan, the WPCF Phase I Preliminary Facilities Plan, and the Phase I Schematic Design Report.[1,2,3] Complete references for these and other resource documents appear in Chapter 6 of this IS. This IS, including documents referenced herein, is now available for review at:

City of Hayward
Department of Public Works
Utilities Administration
777 B Street
Hayward, CA 94541-5007

CHAPTER 2

PROJECT DESCRIPTION

The purpose of the City's WPCF Improvements Project is to (1) replace the failed FBR process, (2) realize increased plant reliability using redundant treatment units and more appropriate treatment technologies to consistently meet NPDES Permit requirements of the EBDA, and (3) through the above, accommodate, the City's 2020 growth needs. This chapter includes discussion of the Project's location, the Project site setting, the proposed site plan with a description of the Project components, the Project schedule, required permits and approvals, and Project features that will minimize potential impacts.

LOCATION

As discussed in Chapter 1, the WPCF is located about ½-mile north of Highway 92, near the east shoreline of San Francisco Bay (Figure 1-1). The address is 3700 Enterprise Avenue, Hayward.

PROJECT SITE SETTING

Figure 2-1 shows the proposed WPCF site plan relative to surrounding land use. Existing WPCF facilities include the plant facilities and sludge drying beds and oxidation ponds to the west. Surrounding land uses currently include a variety of industrial uses. The closest residential area is about 0.82 miles to the east.

There are several future land use considerations reflected on Figure 2-1 that are relevant to the proposed WPCF Improvements Project. These include the possible future redevelopment of the unincorporated area bordering the northern plant boundary, south of Depot Road; the future extension of Whitesell Street; and the proposed Russell City Energy Center (RCEC) Project south of the WPCF across Enterprise Road.

The unincorporated area currently includes several auto dismantling and wrecking facilities. This area represents a portion of the Mt. Eden Subarea of the 3,500-acre Eden Area Redevelopment Project. Options for redeveloping this area will be considered in the future.[15] One option would be annexation by the City and the City is considering preparation of an annexation feasibility study in 2003.[7] Future land uses could include campus-style high tech, traditional manufacturing, and warehouse uses.

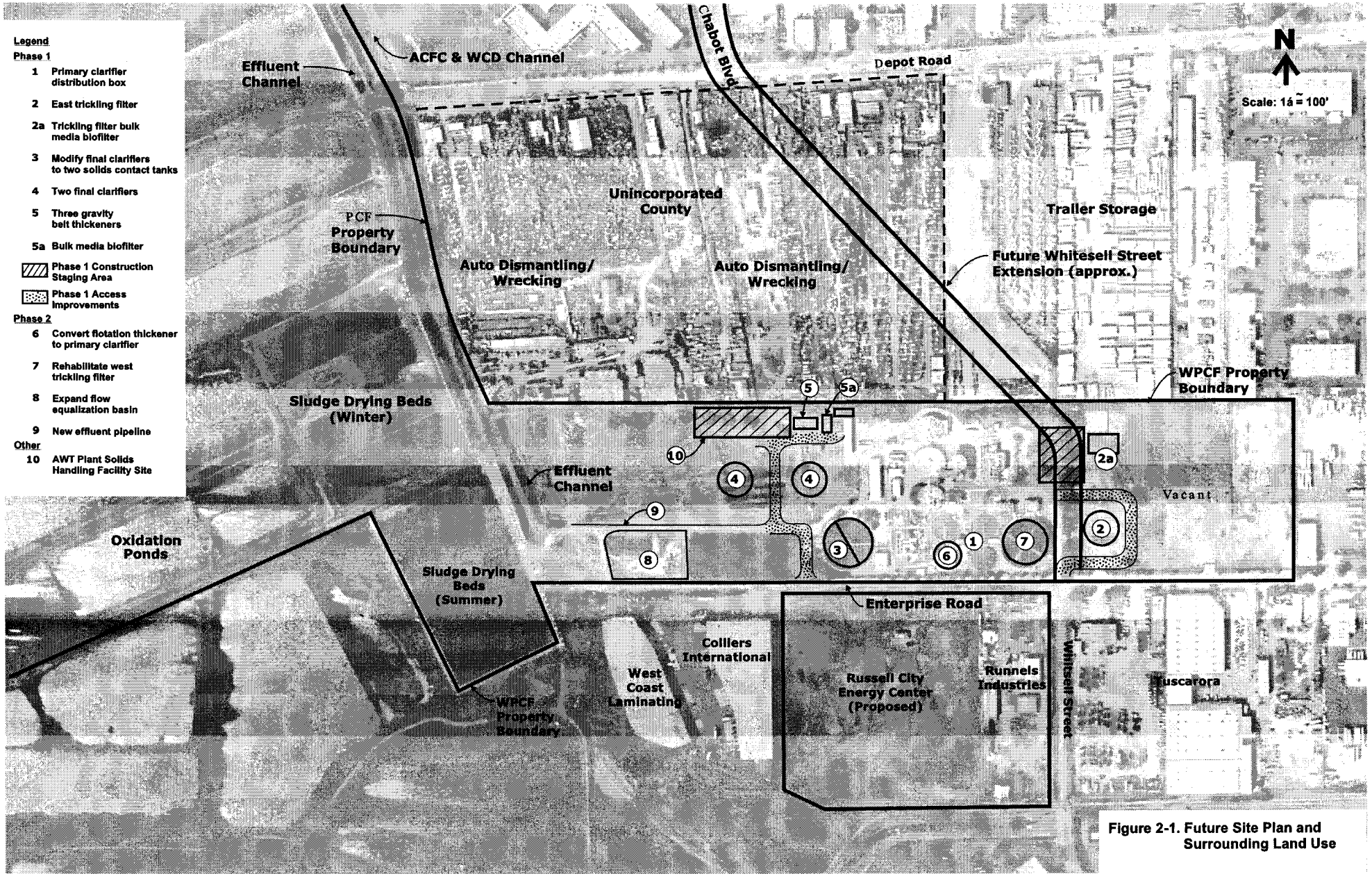

Figure 2-1. Future Site Plan and Surrounding Land Use

Within the WPCF plant property (Figure 2-1), a right-of-way exists for extension of Whitesell Street. This project involves extending Whitesell Street from its existing terminus near the WPCF north to Cabot Boulevard. The Whitesell Street extension has been recognized in the Circulation Element of the City's General Plan for many years and its implementation continues to be uncertain. Because the extension would be constructed through WPCF property, the WPCF Improvements Project includes provisions for accommodating this project, as discussed below.

To the south of the WPCF site across Enterprise Avenue is the proposed RCEC, which is a Calpine Development. This project is a 600-megawatt (MW) gas-fueled, combined-cycle electric power generation plant that must be licensed by the California Energy Commission (CEC). Figure 2-2 shows the major RCEC facilities relative to the WPCF site and property boundary. (The new WPCF Phase 2 chlorine contact pipeline alignment can be seen on this figure.) Calpine/Bechtel has negotiated with the City to jointly own and operate advanced waste treatment (AWT) facilities that would provide reclaimed wastewater as a cooling water make-up source. The AWT facilities would be partially sited on the RCEC site and partially on the City's WPCF site. The CEC's Presiding Members Proposed Decision published July 31, 2002, recommended approval of the Project to the Commission. The Commission approved the RCEC at their September 11, 2002, meeting.

DESCRIPTION OF PROJECT COMPONENTS

Figure 2-1 shows the various components of the WPCF Improvements Project. Table 2-1 lists the various improvements (Phase 1 and 2), some descriptive information, and their purpose. The improvements consist of a combination of new above-ground facilities, rehabilitation of existing facilities, and below-ground facilities.

The WPCF Improvements Project will convert the facility to a new fundamental secondary treatment process called the trickling filter/solids contact (TF/SC) process, which will provide greater redundancy in the major treatment system components. The Project facilities improve the impaired ability of the plant to treat sewage at EBDA authorized waste discharge rates to effluent limitations applicable to EBDA dischargers. They do not provide for any increase in authorized waste discharge rates.

The existing biological treatment process consists of a trickling filter followed by an FBR. The FBR has been determined to be a failed process. Phase 1 of the Improvements Project will replace the FBR with a suspended growth solids contact process.

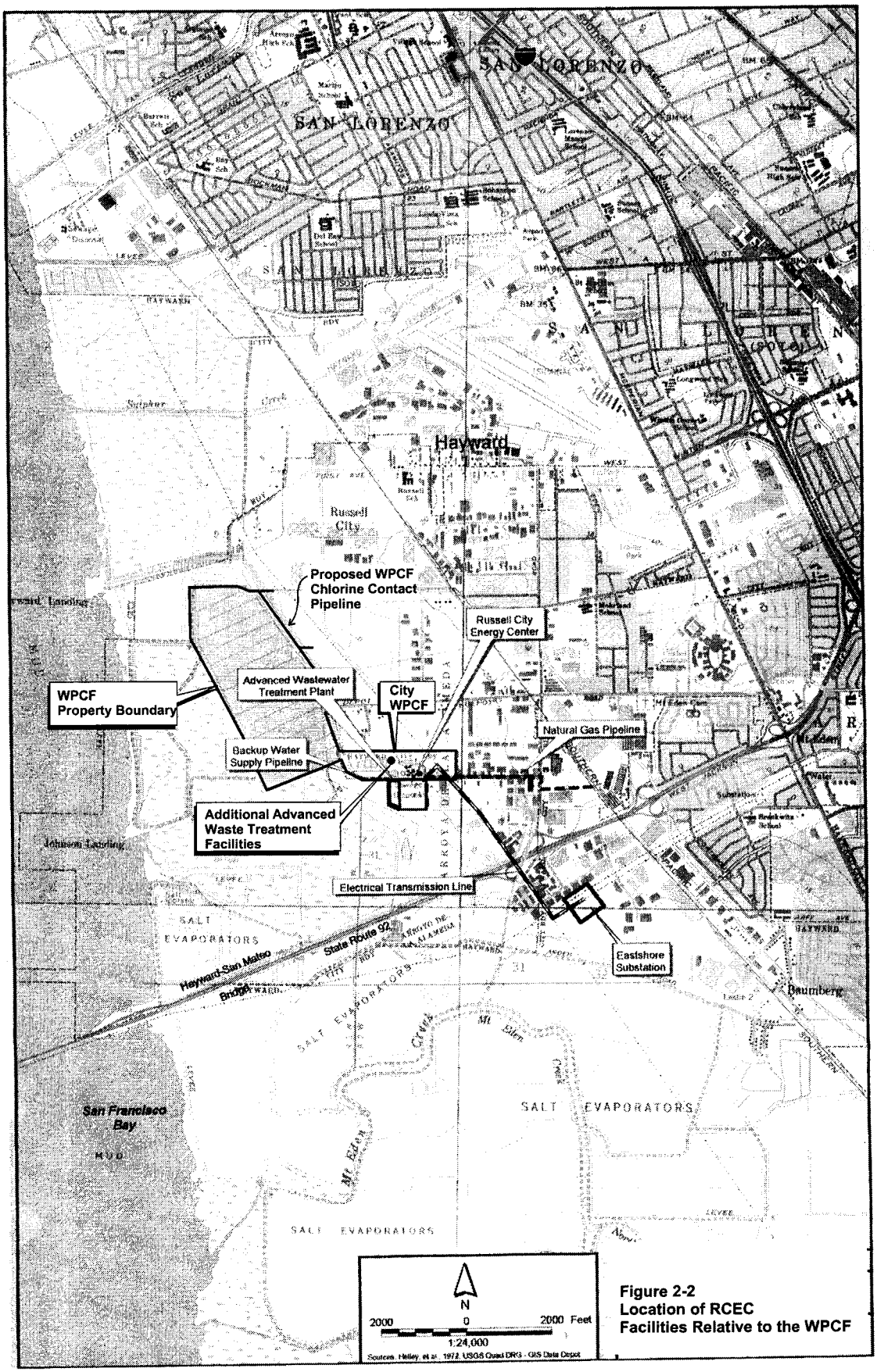

Figure 2-2
Location of RCEC Facilities Relative to the WPCF

Table 2-1. Summary of Project Components

Component	Description	Purpose
Phase 1		
Primary clarifier distribution box	Distribution box consists of four 3-foot cut throat flumes.	Accepts all flow from the vacuators and evenly distributes flow to primary clarifiers. Improves treatment process.
East trickling filter (TF)	The east TF consists of a covered 26-foot-high, 105-foot-diameter TF with 22 feet of cross flow media.	Necessary to meet EBDA $CBOD_5$ permit values and to provide redundancy in the biological treatment unit at the WPCF.
Trickling filter pump station	Four-mgd pumps in rectangular one-story building of about 1,000 square feet in area.	Serve both trickling filters. Incorporates controlled trickling filter recirculation rates and snail control mode of operation.
Odor treatment system for trickling filters	Soil bed biofilter.	Collects and treats foul air from the new, covered east TF and ultimately from the west TF during Phase 2.
Three solids contact tanks in place of existing final clarifier	The solids contact tanks are 15 feet in depth and aerated.	Improve system performance to meet EBDA total suspended solids (TSS) permit limit.
Aeration blower building	Conversion of existing one-story building of about 500 square feet in area.	House aeration system blowers that supply the solids contact tanks.
Two final clarifiers with return secondary sludge pumping stations	The east and west final clarifiers will be 1 to 2 feet above grade, 90 feet in diameter and 18 feet deep.	Improve system performance for meeting EBDA TSS permit limit, and provide process redundancy for final clarification.
Waste secondary solids pump station	Outdoor pumping facility.	Provide controlled draw-off of return secondary sludge flow and direct waste secondary sludge to thickening facility.
Three gravity belt thickeners	Solids thickening building will be two stories, about 15 feet high. Bottom level will be about 5,800 square feet.	Thicken primary and waste secondary sludge prior to anaerobic digestion treatment.
Odor treatment system for thickening system	Soil bed biofilter.	Collects and treats foul air from the new primary and waste secondary sludge thickening system.

Table 2-1. Summary of Project Components (continued)

Component	Description	Purpose
Upgrade plant utility water	The existing utility water system will be replaced with new pressure filters and filter feed pumps.	Accommodate increased need for utility water at WPCF.
Phase 2		
Conversion of existing flotation thickener into new primary clarifier	The fourth primary clarifier will be at grade, and 80 feet in diameter with a 12-foot sidewater depth.	Provide additional treatment capabilities for TSS removal as actual flows reach permitted capacity.
Rehabilitate existing FFR (west TF)	Modifications consist of a cover and new distribution arm.	Control and treat off-gas to mitigate odor issue associated with existing FFR. Increase hydraulic application capability to process unit.
Chlorine contact pipeline	One new 72-inch pipeline approximately 1,600 feet long.	Improve performance and chlorine contact time during higher flows and eliminate existing hydraulic bottleneck.
Expand flow equalization basin	The flow equalization basin will be expanded from 3.5 million gallons to 7.5 million gallons.	Additional flow equalization needed to accommodate peak flows.
New effluent pipeline	The existing 48-inch-diameter effluent pipes will be replaced with 60-inch or 72-inch pipes.	Provide greater capacity to accommodate 35 mgd wet weather discharge.

Source: Brown and Caldwell, reference 3.

In addition to fundamentally changing the secondary treatment process, another major objective is to improve the overall reliability of the treatment plant by improving the level of redundancy available with the major process units. The WPCF has maintained significant process failure risk by virtue of having only a single trickling filter and a single final clarifier. Both of these process units are essential to meeting the goals of secondary treatment and both units require maintenance. Without multiple units, the City is faced with complete loss of secondary treatment should either the trickling filter or the final clarifier require maintenance. Accordingly, the Project includes building another trickling filter and building two new final clarifiers to replace the single final clarifier (which will be replaced with a solids contact tank system).

The Master Plan defined all recommended improvements necessary to achieve the agreed upon improvement objectives for the facility. The improvements were divided into Phase 1 and Phase 2 projects to recognize that some of the improvements could be delayed until after the initial conversion of the secondary process was in place. Phase 2 elements include resolving some existing hydraulic bottlenecks, improving disinfection, adding additional primary treatment capacity, increasing flow equalization volume, and rehabilitating the existing trickling filter.

Odors have been an issue associated with WPCF operation. Potential odor sources of greatest concern were identified during the WPCF evaluation and include the trickling filters (one existing, one new) and the sludge thickening system. Phase 1 of the Project includes covering the new trickling filter, with collection and treatment of the foul air using a biofilter. A biofilter reduces odors by passing foul air through a mixture of constituents including compost, bark, soil, wood chips, peat, carbon, and other organic or inorganic media. The biofiltration process can be defined as the oxidation of airborne contaminants into carbon dioxide and water by the biological action of microorganisms. Additional, but separate, biofilters would be provided for the treatment of foul air from the sludge thickening system. In Phase 2, the existing trickling filter would be covered, with foul air treatment at the trickling filter biofilter.

As illustrated on Figure 2-1, the Phase 1 Project will have an east and west construction staging area. About 5.6 acres of improved areas will be added to the WPCF. New roads will be constructed to allow access to the proposed facilities. Construction of the new facilities will be largely outside of the current plant area and, therefore, is not expected to interfere with plant operations. The main plant access road off of Enterprise Avenue will be kept clear for traffic throughout construction, and the new western access road will improve access to the sludge drying beds.

The proposed access road to the east trickling filter will cross the easement provided for future extension of Whitesell Street at grade. Therefore, the access road will require modifications in order to allow maintenance personnel to access the new facility upon construction of Whitesell Street. Options include at-grade traffic control or the construction of an underpass. New facilities will be located to allow for the future implementation of either option.

SCHEDULE

Preliminary projections indicate that Phase 1 of the WPCF Improvements Project can be completed within 15 to 24 months, with construction beginning during the first quarter of 2003.[3] A schedule for Phase 2 would be developed during design efforts for those improvements.

PERMITS AND APPROVALS

Because the Project does not include an increase in permitted capacity, there should not be an immediate need to modify the City's EBDA permit. Any necessary revisions to the permit owing to WPCF modifications may be accommodated during a permit re-issuance process to be completed in 2005. The City will need to obtain additional permits from the Bay Area Air Quality Management District (BAAQMD) and the City Fire Department. The Contractor will need to obtain a building permit, grading permit, and prepare a surface water pollution prevention plan (SWPPP) pursuant to the State's General Construction Activity Storm Water Permit Program.

The City is also pursuing funding for the Project through the State Revolving Fund (SRF) Loan Program administered by the State Water Resources Control Board, Division of Clean Water Programs (Division). Because the SRF Loan Program is partially funded by the U.S. Environmental Protection Agency (EPA), it is subject to federal environmental regulations. EPA established specific CEQA-Plus requirements that apply to projects requesting SRF funding. The City will also be subject to various other Division requirements that relate to review and approval of design and construction documents.

PROJECT FEATURES THAT WILL MINIMIZE POTENTIAL IMPACTS

The following measures have been incorporated into the WPCF Improvements Project by the City to reduce or eliminate potential impacts:

Aesthetics

1. Require all new and modified structures to be treated architecturally to present a unified appearance and to develop a common architectural style for the WPCF, recognizing the visibility of the facility to the public from adjacent existing and proposed streets, and from the Bay.

Unstable Earth Conditions

1. Include the recommendations of the Geotechnical Investigation on foundation types, foundations, below-grade walls, and earthwork into the design and construction specifications of the Project.

2. Have a Geotechnical Engineer review Project plans and specifications prior to construction to verify that geotechnical aspects of the Project are consistent with the intent of the recommendations included in the Geotechnical Investigation.

3. Have a Geotechnical Engineer monitor foundation, earthwork, and excavation operations during construction.

Dewatering, Erosion, and Stormwater Management

1. Evaluate the capacity of the WPCF waste pump station for accommodating additional discharges related to dewatering and stormwater flows.

2. If necessary, develop and implement alternative management practices that may include use of on-site flow equalization basins or construction of a separate storm drain to the City's storm drain system.

3. Require Project design to have Storm Water Pollution Prevention Plan (SWPPP) Guidelines for management of site earthwork activities and for discharges into the surface drainage system. The contractor will be required to use these guidelines to prepare a SWPPP and to follow the SWPPP at all times.

4. Require the Contractor to obtain a City grading permit and to comply with all permit conditions.

Health and Safety

1. Comply with requirements of the City's Fire Department for storage and containment of hazardous materials and for design and construction measures related to fire safety.

Air Quality and Odor

1. Comply with applicable Bay Area Air Quality Management District (BAAQMD) regulations and obtain necessary permits for new facilities.

2. Require the Contractor to do the following:

   - Water all active construction areas at least twice daily.
   - Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard.
   - Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
   - Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
   - Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
   - Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
   - Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.).
   - Limit traffic speeds on unpaved roads to 15 mph.
   - Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
   - Replant vegetation in disturbed areas as quickly as possible.

Noise

1. Require excessively noisy Project facilities such as generators, pump stations, and aeration blows to be housed in enclosed buildings.

2. Require the contractor to obtain a City building permit and to comply with all requirements related to noise abatement during construction.

Transportation/Traffic

1. Include appropriate improvements in the proposed access road to the east trickling filter to allow usage by maintenance personnel, recognizing the possible future extension of Whitesell Street.

2. Require the contractor to keep the main plant access road clear for traffic throughout construction, thus maintaining emergency access and minimizing impacts to plant operations.

CONSISTENCY WITH THE GENERAL PLAN

The Project is consistent with the City's General Plan.[5] The General Plan notes that the WPCF improvements are needed in order to improve treatment process reliability and provide for redundancies. The General Plan also notes the WPCF Improvements Project will not add capacity beyond the current rated capacity of 16.5 mgd, which is deemed sufficient to serve the City's needs over the next 20 years.

CHAPTER 3

ENVIRONMENTAL CHECKLIST

This checklist was used to identify environmental impacts that could occur if the proposed Project is implemented. The right-hand column in the checklist lists the source(s) for the answer to each question. The source cited are identified at the end of the checklist. Discussions of the basis for each answer are found in Chapter 4 of this Initial Study.

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
A. AESTHETICS						
Would the Project:						
1) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒	☐	1,5
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒	☐	1,5
3) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐	☐	1,4,6,7
4) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☒	☐	☐	1,2
B. AGRICULTURE RESOURCES						
Would the project:						
1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐	☐	1
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒	☐	1,6

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
3) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☒	☐	1
C. AIR QUALITY						
Would the project:						
1) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒	☐	4,11
2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒	☐	☐	☐	1,7,11
3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐	☐	1,4,11
4) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐	☐	1
5) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐	☐	1,7
D. BIOLOGICAL RESOURCES						
Would the project:						
1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies or regulations, or by the California Department of Fish & Game or U.S. Fish and Wildlife Services?	☐	☐	☐	☒	☐	3

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife service?	☐	☐	☐	☒	☐	3
3) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒	☐	3
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒	☐	3
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒	☐	3,4
6) Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒	☐	3,4,8
E. <u>CULTURAL RESOURCES</u>						
Would the project:						
1) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒	☐	3

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐	☐	3
3) Directly or indirectly destroy a unique paleontological resource or site, or unique feature?	☐	☐	☐	☒	☐	3
4) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐	3
F. GEOLOGY AND SOILS						
Would the project:						
1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:						
a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒	☐	4,5
b) Strong seismic ground shaking?	☐	☒	☐	☐	☐	7
c) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐	☐	7
d) Landslides?	☐	☒	☐	☐	☐	7
2) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	☐	1,2,7

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
3) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐	☐	7
4) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒	☐	☐	☐	7
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒	☐	1
G. HAZARDS AND HAZARDOUS MATERIALS						
Would the project:						
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐	☐	1
2) Create a significant hazard to the public, or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐	☐	1
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒	☐	1

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒	☐	1
5) For a project located within an airport land use plan or, where. such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐	☐	1
6) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒	☐	1
7) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒	☐	1
8) Expose people or structures to significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒	☐	1
H. <u>HYDROLOGY AND WATER QUALITY</u>						
Would the project:						
1) Violate any water quality standards or waste discharge requirements?	☐	☐	☐	☐	☒	9

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐	☐	1
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	☐	☒	☐	☐	☐	7
4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☒	☐	☐	☐	7
5) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐	☐	7
6) Otherwise substantially degrade water quality?	☐	☐	☐	☐	☒	1
7) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒	☐	1,4

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
8) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒	☐	1,4
9) Expose people or structures to a significant risk of loss, injury or death involving flooding as a result of the failure of a levee or dam?	☐	☐	☐	☒	☐	4
10) Be subject to inundation by seiche, tsunami, or mudflow?	☐	☐	☒	☐	☐	4
I. LAND USE AND PLANNING						
Would the project:						
1) Physically divide an established community?	☐	☐	☐	☒	☐	1
2) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒	☐	1,4
3) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒	☐	1,4,8
J. MINERAL RESOURCES						
Would the project:						
1) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒	☐	1
2) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒	☐	1

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
K. NOISE						
Would the project result in:						
1) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐	☐	1,3,4,7
2) Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐	☐	1,3,4,7
3) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	☐	1,3,4,7
4) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐	☐	1,3,4,7
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐	☐	1,3,4,7
6) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒	☐	1,4

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
L. POPULATION AND HOUSING						
Would the project:						
1) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐	☐	1,4
2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐	1
3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒	☐	1
M. PUBLIC SERVICES						
Would the project:						
1) Result in substantial adverse physical impacts associated with the provision of new or physically altered govern mental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
Fire protection?	☐	☐	☐	☒	☐	1
Police protection?	☐	☐	☐	☒	☐	1
Schools?	☐	☐	☐	☒	☐	1
Parks?	☐	☐	☐	☒	☐	1
Other public facilities?	☐	☐	☐	☒	☐	1

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
N. RECREATION						
Would the project:						
1) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒	☐	1
2) Include recreational facilities or require the construction of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒	☐	1
0. TRANSPORTATION/TRAFFIC						
Would the project:						
1) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☒	☐	☐	1
2) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐	☐	1
3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒	☐	1
4) Substantially increase hazards due to a design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒	☐	1,7
5) Result in inadequate emergency access?	☐	☐	☒	☐	☐	1,7

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
6) Result in inadequate parking capacity?	☐	☐	☒	☐	☐	1,7
7) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g. bus turnouts, bicycle racks)?	☐	☐	☐	☒	☐	1
P. UTILITIES AND SERVICE SYSTEMS						
Would the project:						
1) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☐	☒	9
2) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒	☐	☐	☐	1
3) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐	☐	1,7
4) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒	☐	1,7
5) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐	☒	1

ENVIRONMENTAL CHECKLIST	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact	Beneficial Impact	Information Sources
6) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☒	☐	1
7) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☒	☐	1
Q. MANDATORY FINDINGS OF SIGNIFICANCE						
1) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	☐	1
2) Does the project have impacts that are individually limited, but cumulatively considerable? (Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☒	☐	1
3) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐	1

CHECKLIST INFORMATION SOURCES

1. Professional judgment and expertise of the environmental specialist preparing this assessment, based upon a review of the site and surrounding conditions and review of preliminary design information supplied by the City's engineer.

2. Lloyd Slezak, Engineering Project Manager, Brown and Caldwell Consultants, personal communication, August 29, 2002.

3. Calpine/Bechtel Joint Development. Application for Certification for the Russell City Energy Center, Volumes 1 and 2. May 2001.

4. City of Hayward Community and Economic Development Department. City of Hayward General Plan. March 13, 2002.

5. Lamphier-Gregory. Final EIR, Hayward General Plan Update. March 13, 2002.

6. Gary Calame, Senior Planner. City of Hayward Department of Community and Economic Development, personal communication, April 29, 2002.

7. Brown and Caldwell. Schematic Design Report for WPCF Improvements—Phase 1. May 2002.

8. Hayward Area Shoreline Planning Agency. Hayward Area Shoreline Planning Program. 1993.

9. Brown and Caldwell. Hayward Water Pollution Control Facility Master Plan. September 2001.

10. Personal communication from Mr. Robert Nishamura, Permitting Division, Bay Area Air Quality Management District, September 3, 2002.

11. BAAQMD. CEQA Guidelines. Revised December 1999.

CHAPTER 4

DISCUSSION OF ENVIRONMENTAL CHECKLIST

A. AESTHETICS

SETTING

The City is located along the eastern shore of San Francisco Bay (Bay) in Alameda County. The physical setting consists of a 1- to 2-mile-wide band of wetlands along the Bay that are often referred to as "baylands", and a flat to gently sloping Bay plain extending about 4 miles from the Bay to the base of the hills to the east. The WPCF is located in the City's West Industrial Corridor, which lies between the open spaces of the baylands to the west and commercial and industrial areas on the Bay plain.

Land in the industrial corridor includes manufacturing facilities, fabrication shops, warehouses, trucking operations, and automotive salvage yards. Much of the development in the West Industrial Corridor is horizontal in nature, consisting of one and two story buildings. The baylands to the west of the West Industrial Corridor are open in character. The WPCF oxidation ponds, just to the west and northwest of the actual treatment facility, comprise a large portion of the baylands.

SIGNIFICANCE CRITERIA

1. Would the Project have a substantial adverse effect on a scenic vista?

2. Would the Project substantially damage scenic resources?

Impact Analysis

The Project is located in the West Industrial Corridor and would not impact a scenic vista, nor substantially damage scenic resources.

SIGNIFICANCE CRITERIA

3. Would the Project substantially degrade the existing visual character or quality of the site or its surroundings?

Impact Analysis

Aesthetic considerations associated with the proposed WPCF Improvements Project are potentially significant unless mitigated.

Table 2-1 summarizes the various Phase 1 and 2 Project components. Improvements include a combination of new aboveground facilities rehabilitation of existing facilities, and below ground pipelines.

The WPCF is located in the West Industrial Corridor of the City. As discussed in Chapter 2, several land use changes may occur in the future near the WPCF, which may affect the visual landscape of the area. Those include the possible extension of Whitsell Street, the possible redevelopment of the currently unincorporated area bordering the WPCF site, and the RCEC (Figure 2-1). These future projects will substantially increase the visibility of the WPCF by local motorists and employees.

To mitigate this impact to a less then significant level, the City is requiring Project design to include consideration of architectural features. The architectural objective is to achieve an appropriate, cost-effective, functional design throughout the Project. All new and modified structures will be treated architecturally to present a unified appearance, and to develop a common architectural style for the WPCF. Each building will be evaluated in terms of its own specific aesthetic character, with consideration for adjacent structures, short and long term utility cost, and visibility to the public from adjacent existing and proposed streets and from the Bay. Consideration will be made for the possible construction of the RCEC facility.

Mitigation Measures

No additional mitigation measures are required.

SIGNIFICANCE CRITERIA

4. Would the Project create a new source of substantial light or glare?

Impact Analysis

Additional security lighting for the WPCF Improvements Project would be directional and not represent a new source of substantial light or glare. This impact is less than significant.

Mitigation Measures

None required

B. AGRICULTURAL RESOURCES

1. Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland)?

2. Would the Project conflict with existing zoning or agricultural use, or a Williamson Act contract?

3. Would the Project indirectly result in conversion of Farmland to non-agricultural use?

Impact Analysis

No impact. There are no agricultural resources within the WPCF property.

C. AIR QUALITY

SETTING

The climate of Hayward is affected by sea breezes and by its proximity to the Bay. The Bay cools the air with which it comes in contact during warm weather, while during cold weather the Bay warms the air. The normal northwest wind pattern carries this air onshore. Bay breezes push cool air inshore during the daytime and draw air from the land offshore at night.

Winds are predominantly out of the northwest during the summer months. Hayward has a relatively high potential for poor air quality during the summer and fall. When high pressure dominates, low mixing depths and Bay and ocean wind patterns can concentrate and carry pollutants from other cities to Hayward, adding to the locally emitted pollutant mix. In winter and spring, the air pollution potential in Hayward is moderate.

Both federal and state ambient air quality standards exist. According to the City General Plan EIR, the Bay Area is currently classified as a federal and state non-attainment area (standards are not attained) for ozone[6]. Ozone is often referred to as smog and is formed in the atmosphere through complex chemical reactions between nitrogen oxides (NO_x), and reactive organic gases (ROG) in the presence of sunlight. The principal sources of NO_x and ROG, often termed ozone precursors, are combustion processes (including automobiles) and evaporation of solvents, paints, and fuels. Air pollutants of concern in the Bay Area and Hayward include the following:

- Ozone - The Bay Area is non-attainment for this pollutant. Motor vehicles are the single largest source of ozone precursor emissions in the Bay Area.

- Carbon monoxide (CO) - Motor vehicles are by far the single largest source of CO in the Bay Area. However, levels have been declining and the region has been designated an attainment area for both federal and state standards.

- Particulate matter (PM_{10}) - Fine particulate matter includes a wide range of solid or liquid particles, including smoke, dust, aerosols, and metallic oxides. Sources of PM_{10} emissions include combustion, industrial processes, grading and construction, and motor vehicles.

- Toxic air contaminants (TACs) - A group of pollutants where no safe exposure levels can be established. There are many types of TACs with varying degrees of toxicity. Diesel exhaust is a TAC of growing concern in the Bay Area.

The WPCF is within the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). According to the BAAQMD, fourteen emission sources at the WPCF are currently regulated and permitted[10]. These include engines, boilers, generators, flow equalization, wastewater and sludge treatment processes, and disinfection. The BAAQMD CEQA Guidelines indicate that new sources of air pollutant emissions complying with all applicable BAAQMD regulations generally will not be considered a significant air quality impact[11].

Impacts on sensitive receptors are of particular concern to the BAAQMD. Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses or other who are especially sensitive to the effects of air pollutants. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors. The WPCF is located within the City's West Industrial Corridor. The closest school (Anthony B. Ochoa Middle School) is located 1.2 miles to the east, while the closest residence is located 0.82 miles to the east.

The WPCF has been and continues to be a source of odors in the area. The proposed WPCF Improvements, as discussed in Chapter 2, includes a number of odor abatement measures for new facilities as well as for existing facilities. According to the BAAQMD CEQA Guidelines, a significant odor impact exists where there has been:[11]

- More than one confirmed complaint per year averaged over a three year period, or
- Three unconfirmed complaints per year averaged over a three-year period.

BAAQMD enforcement records over the last five years indicates the WPCF has not received any violation notices, one confirmed odor complaint, and one unconfirmed odor complaint[12]. Thus, pursuant to the BAAQMD criteria, the existing WPCF has not caused a significant odor impact. It is recognized, however, that informal calls are received by the City periodically from local businesses regarding odor generation.

The need for odor or hydrogen sulfide control is governed by two BAAQMD regulations. Regulation 1, Section 1-301, mandates that no person shall discharge from any source whatsoever, such quantities of air contaminants which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public, or which endangers the comfort, repose, health or safety of such persons or the public. Furthermore, Regulation 9, Rule 2, specifically prohibits the emissions of hydrogen sulfide to result in ground-level concentrations of no more than 0.06 parts per million (ppm) averaged over three consecutive minutes or 0.03 ppm averaged over any 60 consecutive minutes.

It is important to note that a Preliminary Odor Study was completed for the WPCF in 1993 by Kennedy Jenks[13]. The major sources, of odor that existed at the plant at that time, in descending orders of magnitude, included the west trickling filter, the primary clarifiers, and the flow equalization pond. The Preliminary Odor Study recommended a series of near-, mid-, and long-term corrective measures. Most of the recommendations have been implemented at the WPCF, or are included in the WPCF Improvements Project.[14]

SIGNIFICANCE CRITERIA

1. Would the Project conflict with or obstruct implementation of the applicable air quality plan?

Impact Analysis

No impact. The applicable air quality plan for the Bay Area is the Bay Area 1997 Clean Air Plan (CAP). The goal of the CAP is to reduce ground-level ozone and satisfy other California Clean Air Act requirements (e.g., performance objectives related to motor vehicles use). The City's General Plan was found to be consistent with CAP because future general plan population growth and vehicle trip projections would not exceed those made by the Association of Bay Area Governments and included in the CAP[5]. Because the WPCF Improvements Project is consistent with the City's General Plan (see Chapter 2 and Section I2 of this Chapter), it is also consistent with the CAP.

SIGNIFICANCE CRITERIA

2. Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation? BAAQMD thresholds of significance for project operations are 80 pounds per day for ROG, NO_x, and PM_{10}.

Impact Analysis

Air quality impacts are potentially significant unless mitigated. The WPCF Improvements Project does include additional equipment, such as standby generators, and treatment processes that will emit pollutants. However, as indicated in Chapter 2, the City will comply with applicable BAAQMD regulations and obtain necessary permits. As such, air quality impacts will be reduced to a less than significant level.

Construction emissions of PM_{10} are also potentially significant unless mitigated. However, the City will require the contractor to do the following:

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials *or* require all trucks to maintain at least two feet of freeboard.
- Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.
- Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for ten days or more).
- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)
- Limit traffic speeds on unpaved roads to 15 mph.
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.

SIGNIFICANCE CRITERIA

3. Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment (including releasing emissions which exceed quantitative thresholds for ozone precursors)?

4. Would the Project expose sensitive receptors to substantial pollutant concentrations?

5. Would the Project create objectionable odors affecting a substantial number of people?

Impacts Analysis

These impacts are less than significant. The WPCF Improvements Project will comply with applicable BAAQMD regulations and is consistent with the CAP. The nearest sensitive receptors are located 0.82 miles to the east and would not be exposed to substantial pollutant concentrations.

Odor abatement is a primary consideration for the WPCF Improvements Project. An Odor Treatment Systems Overview was prepared for the project by Brown and Caldwell, which identify both existing and new odor emission services.[3] These include:

- Trickling filter (one existing and one new).
- Sludge thickening system (gravity belt thickness).
- Solids contact tanks.
- Primary sedimentation tank weir.
- Flow equalization basins.

The trickling filters and gravity belt thickness were identified as the top priorities for odor control. Accordingly, the Project includes the following (see Figure 2-1):

- The new east trickling filter constructed during Phase 1 will be covered and the foul air will be collected and treated in a bulk media biofiltration system. The biofiltration process can be defined as the oxidation of airborne contaminants into carbon dioxide and water by the biological action of microorganisms.

- Foul air from the gravity belt thickness constructed during Phase 1 will be collected and treated in a separate bulk media biofiltration system.

- The existing west trickling filter will be covered during Phase 2 and the foul air will be collected and treated in the trickling filter bulk media biofiltration system.

The bulk media biofiltration system relies on passing foul air through natural media and provides oxidation of airborne contaminants. Biofilters are proven technology that are effective in removing volatile organic compounds (VOCs), as well as more conventional odorous compounds.

Mitigation Measures

No additional mitigation measures are required.

D. BIOLOGICAL RESOURCES

SETTING

The WPCF is located on the alluvial coastal plain of the Bay. The alluvial coastal plains have been largely converted to urban development, salt evaporation ponds, or ruderal (disturbed and weedy) areas. Remnants of the historic northern coastal salt marsh complex remain protected in parks and preserves. The closest preserve to the WPCF property is the Hayward Regional Shoreline to the west, which contains significant biological resources. In the shoreline area, the Hayward Area Shoreline Planning Agency (HASPA) has prepared an Environmental Enhancement Plan that identifies the various habitat types based on the geophysical and biophysical associations and makes recommendations for enhancements to each of the properties. The City's Urban Limit Line in the General Plan provides a boundary between the designated "baylands" to the west and the West Industrial Corridor to the east. The City's oxidation ponds and sludge drying beds are designated baylands while the treatment facility is within the West Industrial Corridor.

The RCEC Application for Certification includes a detailed biological resource assessment for these facilities. Database searches and biological field surveys were conducted for a one mile radius from the RCEC plant site, and at least 1,000 feet in each direction from the electric transmission line, natural gas supply pipeline, and the wastewater pipeline rights-of-way centerlines (Figure 2-2). In so doing, the RCEC biological assessment provides a recent and thorough database for the WPCF Improvements Project. The assessment did not identify any special status plant or animal species or valuable habitat within the WPCF property.

SIGNIFICANCE CRITERIA

1. Would the Project have a substantial adverse effect on any candidate, sensitive, or special status species?

2. Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community?

3. Would the Project have a substantial adverse effect on federally protected wetlands?

4. Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species?

5. Would the Project conflict with any local policies or ordinances protecting biological resources?

6. Would the Project conflict with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan?

Impact Analysis

There would be no impact to biological resources. New facilities associated with the WPCF Improvements Project would be constructed within the plant site on land areas used either for sludge drying and storage or on other highly disturbed areas with ruderal vegetation. The WPCF Improvements Project would not conflict with the Hayward Shoreline Enhancement Plan or any other approved conservation plan.

E. CULTURAL RESOURCES

SETTING

The RCEC Application for Certification also provides a recent and thorough cultural resources assessment for the WPCF Improvements Project.[4] Inventory methods for the RCEC project consisted of archival research, an intensive pedestrian survey, architectural reconnaissance, and Native American consultation.

Archival Research. The archival records search was conducted at the Northwest Center at the California Historical Resources Information System at Sonoma State University in Rohnert Park on February 15, 2001. An area bordered by the western edge of the City's WPCF, State Route 92, Interstate 880, and West Winton Avenue was searched. In addition to reviewing available survey reports, lists of historic properties (e.g., the National Register of Historic Places, California Inventory of Historic Resources, California Points of Historic Interest, and California Landmark files) were reviewed to locate historic archaeological sites within the project area. Project staff also studied USGS topographic maps and other historical maps to determine where unrecorded historic structures and features might be located. The archival search located no

previously recorded prehistoric or historic sites within or near the project APE. The archival research area included land within 1,000 feet of the RCEC project site and the linear facilities.

Pedestrian Field Survey. A pedestrian field survey was conducted on March 27 and 28, 2001. The survey area included the entire RCEC and AWT project site, and areas within 1,000 feet of the natural gas pipeline, electrical transmission line, and water supply and wastewater discharge pipeline. No significant historic or prehistoric structures or resources were encountered during the field survey.

Native American Consultation. For the RCEC project, the Native American Heritage Commission (NAHC) was contacted by mail on March 29, 2001, and information regarding traditional cultural properties and sacred places, such as Native American cemeteries, in the project area was requested. On April 6, 2001, the NAHC responded that there are no known sacred lands in the project vicinity. The NAHC also provided a list of Native American groups or individuals that may have knowledge regarding traditional cultural properties and sacred places, such as Native American cemeteries, in the project area. On April 6, 2001, the NAHC responded that there are no known sacred lands in the project vicinity. The NAHC also provided a list of Native American groups or individuals that may have knowledge regarding traditional cultural properties and sacred places in the project area. A letter was sent to each of these parties on May 8, 2001, requesting information about such properties. According to Mr. Andrew Gorman, Archaeologist for Foster Wheeler Environmental Corporation, no responses from any of the groups or individuals were received.[16]

SIGNIFICANCE CRITERIA

1. Would the Project cause a substantial effect on a historical resource?

2. Would the Project directly or indirectly destroy a unique paleontological resource?

Impact Analysis

There would be no impact to historic or paleontological resources. The RCEC archival research did not identify any previously recorded historic or historic sites within or near the RCEC APE which includes the WPCF property. All new facilities associated with the WPCF Improvements Project would be constructed within the existing facility.

SIGNIFICANCE CRITERIA

3. Would the Project cause a substantial adverse effect on an archaeological resource?

4. Would the Project disturb any human remains?

Impact Analysis

Based on the RCEC cultural resource assessment, the WPCF will not impact any known archaeological resource, and there is no record of interred human remains that could be disturbed. However, buried archaeological resources or remains could be encountered during construction. According to the RCEC Application for Certification, this Bay shore location has a high level of sensitivity for prehistoric cultural resources. Thus, these are potentially significant impacts.

Mitigation Measures

The following measures are recommended to reduce these impacts to a less than significant level:

- In the event that any archaeological resources are uncovered during construction activity, there should be no further excavation or disturbance of the site or any nearby area until the find has been evaluated by a qualified archaeologist, and appropriate site-specific mitigation has been identified to protect, preserve, remove or restore the artifacts uncovered.

- In the event that any human remains are uncovered during construction activity, there should be no further excavation or disturbance of the site or any nearby area until after the Alameda County Coroner has been informed and has determined that no investigation of the cause of death is required or such investigation has occurred and appropriate actions have been taken, and (if the remains are determined to be a Native American origin) the descendants from the deceased Native American(s) have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

F. GEOLOGY AND SOILS

SETTING

The WPCF site is located along the eastern shore of the Bay which lies centrally within the Coast Ranges Physiographic Province of California. The Bay fills a northwest-trending structural depression in the Central Coast Ranges and lies roughly between the San Andreas Fault (14 miles to the west) and the Hayward Fault (3 miles to the east). The WPCF is located in the seismically active Bay Region, which has experienced repeated large to moderate earthquakes in historic times.

According to the City's General Plan, soils at the WPCF site are classified as Clear Lake-Omni-Urban Land. These soils are typically poorly drained clays and silty clay loams with low strength and moderate to high shrink-swell potential. The WPCF site is located in an area of high liquefaction hazard. Liquefaction is defined as the transformation of a granular material from a solid state into a liquefied state as a consequence of increased power pressure and decreased effective stress. Liquefaction typically is caused by strong ground shaking during an earthquake.

A draft report on the geotechnical investigation for the Phase I WCPF Improvements Project has been completed by Olivia Chen Consultants[3]. The purpose of the Geotechnical Investigation was to evaluate subsurface conditions at the Project site and to provide geotechnical recommendations for design of the proposed structures.

The Geotechnical Investigation included a thorough review of previous geotechnical information for the site and surroundings as well as collection and analysis of bore hole samples from eight locations to a depth of 151.5 feet below ground surface, the greatest depth explored. Soils were found to be primarily lean clay with varying amounts of sand. Layers of highly plastic clay were encountered at several locations. Sand layers and lenses, generally less than 5 feet thick, were encountered at various depths at all boreholes.

SIGNIFICANCE CRTIERIA

1. Would the Project expose people or structures to substantial adverse effects due to:

    a) Rupture is a known earthquake fault, as delineated on the most recent Alquist Priolo Earthquake Fault Zoning Map?

5. Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems?

Impact Analysis

No impacts. According to the City's General Plan, the WPCF is not within an Alquist-Priolo Earthquake Special Studies Zone[5]. Issues related to adequacy of soils for septic tanks or alternative wastewater disposal systems are not applicable.

SIGNIFICANCE CRITERIA

1. Would the Project expose people or structures to substantial adverse effects due to:

   a) Strong seismic ground shaking?
   b) Seismic-related ground failure, including liquefaction?
   c) Landslides?

2. Would the Project result in substantial soil erosion or loss of topsoil.

3. Would the Project be located on geologic units or soils that could potentially result in off-site landslides, lateral spreading, subsidence, liquefaction, or collapse?

4. Would the Project be located on an expansive soil, creating substantial risks to life or property?

Impact Analysis

Geologic hazards associated with the proposed WPCF Improvements Project are potentially significant unless mitigated. Without appropriate safeguards during design and construction, new facilities and structures could be damaged and environmental risks could occur. However, as discussed above and in Chapter 2, the City commissioned a Geotechnical Investigation for Phase 1 of the WPCF Improvements Project. Accordingly, the City will assure the following:

1. Recommendations of the Geotechnical Investigation as related to foundation types, foundations and below-grade walls, and earthwork will be incorporated into the design and construction specification of the WPCF Improvements Project.

2. A Geotechnical Engineer will review Project plans and specifications prior to construction to verify that geotechnical aspects of the Project are consistent with the intent of the recommendations included in the Geotechnical Investigation.

3. A Geotechnical Engineer will monitor foundation, earthwork, and excavation operations during construction.

The WCPE Improvements Project also has the potential to result in substantial soil erosion and loss of topsoil. Preliminary design information indicates that the Project will add about 5.6 acres of additional improvements to the WPCF. As discussed in Chapter 2, the WPCF Improvements Project will be subject to the General Construction Activity Stormwater Permit requirements of the SWRCB as administered by the RWQCB. The City will have Storm Water Pollution Prevention Guidelines developed during Project design for management of site earthwork activities and for discharge into the surface drainage system. The Contractor will be required to use these guidelines to prepare a Storm Water Pollution Prevention Plan (SWPPP) to assure that stormwater and erosion are properly managed during construction. The Contractor will also obtain a City grading permit and comply with all permit conditions.

Mitigation Measures

No additional mitigation measures are required.

G. HAZARDS AND HARZARDOUS MATERIALS

SIGNIFICANCE CRITERIA

1. Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

2. Would the Project create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving release of hazardous materials into the environment?

Impact Analysis

This impact is potentially significant unless mitigated. By its very nature, a wastewater treatment plant must use various chemicals for the treatment of and disinfection of wastewater prior to discharge. Without safeguards, use of these chemicals can create a safety hazard. For the WPCF Improvements Project, the use of certain chemicals not presently used at the facility would be necessary. These include ammonia, caustic, and polymer. To mitigate this impact, the City must obtain a permit from the City's Fire Department and comply with specific requirements for storage and containment of hazardous materials, and for design and construction measures related to fire safety.

Mitigation Measures

No additional mitigation measures are required.

SIGNIFICANCE CRITERIA

3. Would the Project emit hazardous emissions or involve handling of hazardous materials or wastes within one-quarter mile of an existing or proposed school?

4. Would the Project be located on a site listed as a hazardous materials site pursuant to Government Code Section 65962.5?

5. Would the Project be located in the vicinity of a private airstrip and result in a safety hazard?

6. Would the Project impair implementation with an adopted emergency response plan or emergency evacuation plan?

7. Would the Project expose people or structures to significant loss, injury, or death involving wildland fires?

Impact Analysis

No impacts. The closest schools to the WPCF include Anthony w. Ochoa Middle School 1.2 miles to the east, Eden Gardens Elementary School 1.3 miles to the east, and Chabot College 1.4 miles to the east. The WPCF is not on a list of hazardous material sites, not located within the vicinity of a private airstrip, would not impair implementation of an emergency response or evacuation plan, and does not involve issues related to wildland fires.

SIGNIFICANCE CRITERIA

8. Would the Project be located within an airport land use plan or within two miles of a public airport and result in a safety hazard?

Impact Analysis

The WPCF is located within 1.5 miles of the Hayward Air Terminal which is to the northeast. However, potential safety hazards associated with the WPCF Improvements Project are less than significant. See discussion under Items G1 and G2.

Mitigation Measures

No additional mitigation measures are required.

H. HYDROLOGY AND WATER QUALITY

SETTING

The WPCF site lies within the South East Bay Plain Groundwater Basin (SEBP Basin), an alluvial aquifer system consisting of poorly consolidated to unconsolidated lenses of gravel, sand silt, and clay. Covering an area of about 115 square miles, the SEBP Basin is the largest, most productive groundwater basin in the service area of the East Bay Municipal Utility District, who along with the RWQCB manages these groundwater resources. The major water-bearing unit in the basin is the older alluvium of Pleistocene Age, which is overlain by Merritt Sand, Younger Bay Mud, fluvial deposits, and younger alluvium of Holocene Age. Groundwater throughout the area generally flows from east to west, from the Hayward Fault to the Bay[4].

The Geotechnical Investigation for the WPCF Improvements Project concluded that the groundwater level at the site ranges between 6 and 8 feet below the ground surface (bgs) and might fluctuate seasonally. This groundwater would be associated with the shallow perched zone of the SEBP Basin where the water is typically degraded due to industrial spills, leaking underground tanks, and general urbanization of the area.

The WPCF site is also within the San Lorenzo Cone drainage basin. This basin drains an area of west Hayward comprising some 9,700 acres. Surface waters flow into South San Francisco Bay. The largest streams in the WPCF vicinity include Sulfur Creek (1.7 miles to the northwest) and Mt. Eden Creek (1 mile to the south). Most of the streams and arroyos in the vicinity of the WPCF site are ephemeral in nature. Storm-flow runoff is managed by the Alameda County Public Works Agency-Flood Control and Water Conservation District to mitigate flooding impacts and help recharge the groundwater basin. Surface water runoff to the north of the site flows via Landing Canal and discharges to the Bay at Hayward Landing. To the west of the site, a small amount of stormwater runoff flows directly onto an adjacent wetlands parcel owned by Waste Management Corporation. Most local runoff in the vicinity of the WPCF flows south into an unnamed flood canal. Currently, all storm flows from the WPCF are managed on-site with no off-site discharges.[4]

SIGNIFICANCE CRITERIA

1. Would the Project violate any water quality standards or waste discharge requirements?

6. Would the Project otherwise degrade water quality?

Impact Analysis

These are beneficial impacts of the WPCF Improvements Project. As discussed in Chapter 1, the existing WPCF occasionally exceeds NPDES permit requirements. A major objective of the WPCF Improvement's Project is to increase plant reliability to consistently meet permit requirements. Through the proposed improvements, the City will be able to reliably utilize the existing NPDES permitted capacity of 16.5 mgd and thereby accommodate the projected needs of the City's General Plan.

SIGNIFICANCE CRITERIA

2. Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge?

Impact Analysis

This impact is less than significant. As indicated above, the Geotechnical Investigation included that groundwater levels at the WPCF site are 6 to 8 feet bgs. As excavation of up to 20 feet bgs will be necessary for some of the Project improvements, shallow groundwater will be encountered during excavation which will require the specific areas to be dewatered by the contractor during construction. This dewatering will be localized in the shallow groundwater zone and short-term in nature.

Mitigation Measures

No mitigation measures are required.

SIGNIFICANCE CRITERIA

3. Would the Project substantially alter the existing drainage pattern of the site, which would result in substantial erosion or siltation on or off-site?

4. Would the Project substantially alter the existing drainage pattern of the site or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- and off-site?

5. Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff?

Impact Analysis

These impacts are potentially significant unless mitigation measures are included. As discussed under Item F2, the construction contractor will be required to develop and implement a SWPPP to assure that stormwater and erosion are properly managed during construction and to obtain and comply with the provisions of a City grading permit.

Currently, all runoff from the WPCF is managed on-site with no off-site discharges. The Phase 1 Project will add about 5.6 acres of improved areas which will generate additional runoff. Preliminary storm drainage calculations yielded a peak runoff from this additional area of 3.7 mgd for a 10-year storm.[3]

As discussed in Chapter 2, the City intends that this additional runoff volume will be managed on-site. All runoff from the Project area, including water resulting from dewatering of excavation areas, will be collected and conveyed through new storm drain collection facilities to the WPCF headworks. Runoff from the eastern construction area will be conveyed by gravity to the site waste pump station and ultimately back to the headworks. Drainage from the western construction area will be collected and transported to an existing gravity line that originates at the existing sludge drying beds and discharges to the site waste pump station.

The capacity of the site waste pump station is a key consideration for continuing current stormwater management practices. This issue is being addressed during ongoing Project design. If capacity of the site waste pump station is not adequate, then the City will consider additional stormwater management practices, including use of on-site flow equalization basins or construction of a separate storm drain to the City's storm drain system. Any off-site discharge would comply with applicable state stormwater management requirements.

Mitigation Measures

No additional mitigation measures are required.

SIGNIFICANCE CRITERIA

7. Would the Project place housing within a 100-year flood hazard area?

8. Would the Project place structures within a 100-year flood hazard area which would impede or redirect flood flows?

9. Would the Project expose people or structures to hazards associated with failure of a levee or dam?

10. Would the Project be subject to inundation by seiche, tsunami, or mudflow?

Impact Analysis

No impacts. The WPCF oxidation ponds and sludge drying appear to be within the 100-year flood plain.[5] The only improvement in this immediate area is the new chlorine contact pipeline (Figure 2-3), but this is subsurface and would not affect flood flows. The City General Plan includes a delineation of an inundation area caused by failure of the De Valle Dam. However, this area is over 2 miles south of the WPCF site. This City General Plan also illustrates the eastern margin of tsunami inundation with an estimated runoff of less than 10 feet. This area is about 1 mile west of the WPCF site.[5]

I. LAND USE AND PLANNING

SETTING

Figure 2-1 shows the main components of the WPCF Improvements Project. Land uses surrounding the main treatment facility include the City's sludge drying beds and oxidation ponds, auto dismantling/wrecking yards, trailer storage yards, and other industrial uses.

SIGNIFICANCE CRITERIA

1. Would the project physically divide an established community?

2. Would the Project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project?

3. Would the Project conflict with any applicable habitat conservation plan or natural community conservation plan?

Impact Analysis

The WPCF Improvements Project would be constructed within existing property boundaries and would not physically divide an established community or conflict with the Hayward Shoreline Enhancement Plan, as discussed under Item D, Biological Resources. The WPCF Improvements Project is also consistent with the City's General Plan and Zoning Ordinance. The WPCF is designated as mixed industrial in the City's General Plan Land Use Map and is zoned industrial. The Project would not conflict with these designations. The WPCF Improvements Project is recognized in the City's General Plan as an important project to significantly improve the performance of the treatment plant to meet NPDES permit requirements and to reliably meet the City's needs as identified in the General Plan over the next 20 years.

J. MINERAL RESOURCES

SIGNIFICANCE CRITERIA

1. Would the Project result in the loss of availability of a known mineral resource?

2. Would the Project result in the loss of availability of a locally important mineral resource recovery site?

Impact Analysis

According to the City's General Plan, the only designated "sector" of regional significance in Hayward meeting tests of economic feasibility and current compatible land use that is to be protected from land uses incompatible with mineral extraction is La Vista Quarry, located in the unincorporated areas of Mission Boulevard and Tennyson Road. Probable and potential resource zones have been designated in the vicinity of the quarry. No other significant

aggregate or mineral resources are located in the City. The Project will not impact mineral resources.

K. NOISE

SETTING

The WPCF site is located within the Hayward West Industrial Corridor. The nearest residences are along West Industrial Boulevard, about 0.82 miles east of the WPCF site. The area between the site and the nearest residential areas include large concrete and metal buildings which help to obstruct noise. Land uses surrounding the WPCF site (Figure 2-1) include various industrial uses. Primary sources of noise in the area include equipment operation at the WPCF and truck traffic noise on local streets. There is also some noise from airplanes in the flight paths of the Hayward, Oakland, and San Francisco airports.

SIGNIFICANCE CRITERIA

1. Would the Project expose persons to noise levels in excess of standards in the City's General Plan?

2. Would the Project expose persons to excessive ground borne vibration or noise levels.

3. Would the Project result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project (often considered a increase of more than 3 decibels (dB).

4. Would the Project result in a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project?

Impact Analysis

Potential noise impacts associated with the WPCF Improvements Project are less than significant owing to the lack of sensitive receptors in the immediate area as well as the facility design features that would be employed. Construction and operational noise generation would be associated with the Project. Construction noise would be short term in nature and would be associated with the different construction phases, including site preparation, concrete pouring, steel erection, mechanical, clean up, and pile driving. Operational noise sources of significance include new generators, pump stations, and aeration blowers.

The City's General Plan provides guidance for assessing the significance of noise impacts as follows:

- An L_{dn} level of 60 dBA is normally acceptable for residential and other noise sensitive receptors and an L_{dn} of 70 dBA is conditionally acceptable. (L_{dn} is the average A-weighted noise level during a 24-hour day, and dBA is the A-weighted sound level in decibels.)

- An L_{dn} of 75 dBA is considered acceptable for industrial boundaries and 80 dBA is conditionally acceptable.

Because the RCEC project is directly across Enterprise Road from the WPCF and the RCEC Application for Certification contains a comprehensive noise assessment, relevant portions of that assessment can be used for the WPCF Improvements Project construction noise impact assessment. Construction activities for the RCEC project would be similar but greater in magnitude than the WPCF Improvements Project because of the magnitude of that project.

For the RCEC Project, it was determined that sound levels during the loudest normal construction activities would be expected to be between 37 dBA and 49 dBA at the residences located 0.82 miles to the east. These projections do not account for the noise shielding provided by intervening buildings. Thus, average construction noise generally would be inaudible at the residences.

As with the RCEC Project, pile driving would be necessary for the WPCF Improvements Project to provide adequate facility foundations. Projected sound levels at the closest residences from pile driving for the RCEC Project would be higher than that associated with normal construction activities, about 66 dBA which is within the conditionally acceptable range for noise sensitive receptors. These levels are similar to levels aerated by traffic and would not create an impact.

For the WPCF Improvements Project, additional generators, pump stations, and aeration blowers would contribute to the operational or permanent noise generation environment at the plant. However, this equipment would be housed in enclosed buildings and should not be perceptible except in the immediate area.

Increased vibration levels would be associated with pile installation. But, as with the RCEC Project, this activity would impart a relatively limited energy to the surrounding soil and this activity would occur at a significant distance from neighborhood structures and facilities.

As discussed in Chapter 2, the City will require the Contractor to obtain a City building permit and to comply with all requirements related to noise abatement during construction.

Mitigation Measures

No additional mitigation measures are required.

SIGNIFICANCE CRITERIA

5. Would the Project if located within the vicinity of a private airstrip, expose people to excessive noise levels?

Impact Analysis

No impacts. The Project is not located within the vicinity of a private airstrip.

L. POPULATION AND HOUSING

SIGNIFICANCE CRITERIA

1. Would the Project induce substantial population growth either directly or indirectly?

Impact Analysis

This impact is less than significant. The existing permitted capacity of the WPCF is 16.5 mgd and the Project will not increase this capacity. The objective of the Project is to (1) replace the failed FBR project, (2) realize increased reliability using redundant treatment units and more appropriate treatment technologies to consistently meet NPDES Permit requirements, and (3) through the above, accommodate the City's 2020 growth needs.

Mitigation Measures

No mitigation measures are required.

SIGNIFICANCE CRITERIA

2. Would the Project displace substantial numbers of existing housing?

3. Would the Project displace substantial numbers of people?

Impact Analysis

No impacts. The Project will be constructed within the existing WPCF property boundary and will not displace existing housing and people.

M. PUBLIC SERVICES

SIGNIFICANCE CRITERIA

1. Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, including fire and policy protecting schools, and parks?

Impact Analysis

No impact. Project facilities will be constructed on-site and are intended to improve the treatment performance of the WPCF.

N. RECREATION

SIGNIFICANCE CRITERIA

1. Would the Project adversely impact existing neighborhood and regional parks or other recreational facilities?

2. Would the Project include recreational facilities or require the construction or expansion of facilities which might adversely impact the environment?

Impact Analysis

No impacts. The Project will not impact recreational facilities or require construction of new facilities.

O. TRANSPORTATION/TRAFFIC

SIGNIFICANCE CRITERIA

1. Would the Project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?

2. Would the Project exceed, either individually or cumulatively, an established level of service standard?

4. Would the Project substantially increase hazards due to a design feature?

5. Would the Project result in inadequate emergency access?

6. Would the Project result in inadequate parking capacity?

Impact Analysis

These impacts are less than significant. The Project will result in a minor short-term increase in traffic resulting from construction activities. This increase will not be substantial, nor will it result in a level of service standard being exceeded.

The proposed access road to the east trickling filter will cross the easement provided for future construction of Whitesell Street at grade. Therefore, the access road will require modifications in order to allow maintenance personnel to access the new facility upon construction of Whitesell Street. Options include at-grade traffic control or the construction of an underpass. New facilities will be located to allow for the future implementation of either option.

The City will require the construction contractor to keep the main plant access road off Enterprise Avenue clear for traffic throughout construction, thus maintaining emergency access.

The parking available at the WPCF administration building should not be significantly impacted.

Mitigation Measures

No additional mitigation measures are required.

SIGNIFICANCE CRITERIA

3. Would the Project result in a change in air traffic patters?

7. Would the Project conflict with adopted policies, plans, or programs supporting alternative transportation?

Impact Analysis

No impacts. These impacts are not associated with the WPCF Improvements Project.

P. UTILITIES AND SERVICE SYSTEMS

SIGNIFICANCE CRITERIA

1. Would the Project exceed wastewater treatment requirements of the RWQCB?

5. Would the Project result in a determination by the wastewater treatment provider that it has adequate capacity to serve the Project's projected demand?

Impact Analysis

These are beneficial impacts of the WPCF Improvements Project. As discussed in Chapter 1, the existing WPCF occasionally exceeds NPDES permit requirements. A major objective of the WPCF Improvements Project is to increase plant reliability to consistently meet permit requirements. Through the proposed improvements, the City will be able to reliably utilize the existing NPDES permitted capacity of 16.5 mgd and thereby accommodate the projected needs of the City's General Plan.

SIGNIFICANCE CRITERIA

2. Would the Project result in the construction of new or expanded wastewater treatment facilities which could cause significant environmental effects.

Impact Analysis

The WPCF Improvements Project does involve the rehabilitation of existing treatment facilities and the construction of new facilities for the stated objectives in Chapter 2. This Initial Study addresses the potential environmental effects of this Project. With mitigation, as discussed in Chapter 2 and appropriate sections of this chapter, potential environmental impacts can be reduced to a less than significant level.

SIGNIFICANCE CRITERIA

3. Would the Project require or result in the construction of new or expanded storm water drainage facilities which could cause significant environmental effects?

Impact Analysis

This impact is less than significant. The WPCF Improvements Project does involve some additional drainage facilities to accommodate improved areas. All runoff from the Project areas will be collected and carried through new storm drain collection facilities to the headworks of the WPCF. Runoff from the eastern construction area will be conveyed by gravity to the site waste pump station and ultimately back to the headworks of the treatment facility. Drainage from the western construction area will be collected and conveyed to an existing gravity line that originates at the existing sludge drying beds and discharges to the site waste pump station.

Mitigation Measures

No mitigation measures are required.

SIGNIFICANCE CRITERIA

4. Would the Project have sufficient water supplies available to serve its needs.

6. Would the Project be served by a landfill with sufficient permitted capacity to accommodate the Project's waste disposal needs?

7. Would the Project comply with statues and regulations related to solid waste?

Impact Analysis

No impacts. The WPCF Improvements Project does involve an expansion of the on-site non-potable utility water service, but would not impact the potable water system.

Dried sludge from the WPCF is used on an adjacent closed landfill for soil conditioning purposes.

P. MANDATORY FINDINGS OF SIGNIFICANCE

1. Does the Project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal, community, reduce the number of restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

   The WPCF Improvements Project has potential impacts to aesthetics, air quality, cultural resources, geology and soils, hazardous materials, and hydrology and water quality as described above. Mitigation measures have been included in the Project to reduce these potential impacts to a less than significant level.

2. Does the Project have impacts that are individual limited, but cumulatively considerable?

   No. There would be no significant cumulative impacts.

3. Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

   No. The only areas where human beings could potentially be exposed to adverse effects relate to aesthetics, air quality (exposure to substantial pollutant concentrations and odors), hazards associated with chemical storage and use, and noise. However, the WPF is located in the City's West Industrial Corridor and the nearest sensitive receptors are 0.82 miles to the east. Project design features, identified mitigation measures, and the need for the Contractor and the City to obtain appropriate permits and comply with permit conditions will reduce potential adverse effects to less than significant levels.

CHAPTER 5

DETERMINATION

Title of Proposal:	WPCF Improvements Project
Agency Requiring Checklist:	City of Hayward
Agency Address:	777 B Street
City/State/Zip:	Hayward, CA 94541-5007
Agency Contact:	Donald Clark Phone: (510) 583-4719

DETERMINATION

On the basis of this initial evaluation:

a) I find that the proposed Project could not have a significant effect on the environment.

A NEGATIVE DECLARATION will be prepared. _____

b) I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described in the Initial Study have been added to the Project.

A MITIGATED NEGATIVE DECLARATION will be prepared. _____

c) I find that the proposed Project may have a significant effect on the environment.

An ENVIRONMENTAL IMPACT REPORT is required. _____

_____ _____

Signature Printed Name

For: City of Hayward _____

Date

CHAPTER 6

REFERENCES

1. Brown and Caldwell. City of Hayward Water Pollution Control Facility Master Plan. September 2001.

2. Brown and Caldwell. City of Hayward Water Pollution Control Facility Phase I Secondary Treatment Improvements Preliminary Facilities Plan. October 2001.

3. Brown and Caldwell. Schematic Design Report for WPCF Improvements – Phase 1. May 2002.

4. Calpine/Bechtel Joint Development. Application for Certification for the Russell City Energy Center, Volumes I and II. May 2001.

5. City of Hayward Community and Economic Development Department. City of Hayward General Plan. March 13, 2002.

6. Lamphier, Gregory. EIR, Hayward General Plan Update. March 13, 2002.

7. Personal communication with Mr. Gary Calame, Senior Planner, City of Hayward Department of Community and Economic Development, April 29, 2002.

8. Hayward Area Shoreline Planning Agency. Hayward Area Shoreline Planning Program, 1993.

9. Brown and Caldwell. Hayward Water Pollution Control Facility Master Plan. September 2001.

10. Personal communication from Mr. Robert Nishamura, Permitting Division, Bay Area Air Quality Management District, September 3, 2002.

11. BAAQMD. CEQA Guidelines. Revised December 1999.

12. Personal communication from Ms. Rochelle Walker, Public Records, BAAQMD, March 14, 2002.

13. Kennedy/Jenks. City of Hayward Wastewater Treatment Plant Odor Study. October 7, 1992.

14. Personal communication from Mr. Han Vink, Manager of Hayward Water Pollution Control Facility, April 3, 2002.

15. Personal communication with Ms. Eileen Dalton, Alameda County Redevelopment Agency, September 4, 2002.

16. Personal communication with Mr. Andrew Gorman, Foster Wheeler Environmental Corporation, August 8, 2002.

CHAPTER 7

PREPARERS OF INITIAL STUDY

CITY OF HAYWARD

Donald Clark, Project Manager

SCHEIDEGGER & ASSOCIATES

Paul Scheidegger, Project Manager

BROWN AND CALDWELL

Lloyd Slezak, Project Manager
Tim Banyai, Project Engineer

APPENDIX A

EXISTING PROCESS UNIT DESIGN DATA

Table A-1. Design Data for Existing Process Units

Item	Number of Units	Design Data
Headworks		
Grinders		
Number	2	
HP, each		7.5
Manual Bar Screens		
Number	1	
Bar Screen Opening Size, inches		1
Bar Size, inches		3/8
Raw Sewage Pumps		
Number	4	
HP, each		200
Pumping Capacity, each (gpm @ 45' TH)		10,000
Total Pumping Capacity, (mgd)		48 to 50
Soil Bed Scrubber		
Number	2	
Length, (feet)		70
Width, (feet)		35
Average Depth, (feet)		8.5
Vacuators		
Number	2	
Diameter		
South (feet)		35
North (feet)		50
Total Surface Area, (ft^2)		2926
Primary Clarification		
Primary clarifiers		
Number	3	
Diameter, ft		80
Sidewater depth, ft		
Nos. 1 and 2		8.4
No. 3		12.3
Surface Overflow Rate, (gpd/ft^2)		
Average dry weather flow (16.5 mgd)		1094
Peak flow (40 mgd)		2653
Primary clarifier sludge pumps		
Number	4	
HP, each		10
Pumping Capacity, each (gpm)		600
Fixed film reactor (FFR)		
FFR pumping station		
Number of pumps	2	
HP, each		150
Pumping capacity, each (gpm @ 36' TH)		12,500
Total Pumping Capacity, (mgd)		25

Item	Number of Units	Design Data
FFR		
Number	1	
Diameter, feet		150
Media Depth, feet		22
Media type		Vertical
Design total organic loading (lb BOD_5/1000 ft^3/day)		50
Foul air recirculation fans		
Number	1	
Capacity ea., cfm		25,000
HP ea.		25
Fluidized bed reactor (FBR)		
Traveling Screen		
Number	1	
HP		1
Design Capacity, (gpm)		12,000
Peak Capacity, (gpm)		20,000
FBR pumping station		
Number of pumps	2	
HP, each		75
Pumping Capacity, each (gpm @ 14' TH)		14,000
FBR		
Number	3	
Length, feet		16
Width, feet		32
Operating Depth, (feet)		22
Recirculation Ratio		0.6
Oxygen Generator		
Capacity, (tons/day)		6
Biomass Separation Pumps		
Number per FBR	2	
HP		3
Capacity, each (gpm)		50
Dilution Water Pumps		
Number per FBR	1	
HP, each		10
Capacity, each (gpm)		300
Final Clarification		
Final Clarifier		
Number	1	
Diameter, (feet)		170
Sidewater depth, (feet)		9
Sludge removal type		scraper
Sludge Wasting Pumps		
Number	2	
HP, each		15
Capacity, each (gpm)		1750

Item	Number of Units	Design Data
Disinfection		
Hypochlorite Storage		
Number	4	
Capacity, each (gallons)		10,000
Hypochlorite Feed Pumps		
Number	1	
HP, each		0.5
Capacity, each (gph)		140
Hypochlorite Transfer Pump		
Number	1	
HP, each		1
Capacity, each (gpm)		20
Sample Pump		
Number	1	
Capacity, each (ml/min)		500
Chlorine Contact Channel		
Number	1	
Length, (feet)		1600
Design Depth, (feet)		4
Volume @ Design Depth, (gallons)		670,000
Contact Time, (minutes)		
Average dry weather flow (16.5 mgd)		58
Peak flow (40 mgd)		24
Utility Water		
Utility Water Feed Pump		
Number	1	
HP, each		5
Capacity, each (gpm @ 53" TH)		200
Sand Filter		
Number	1	
Diameter, (feet)		5
Length, (feet)		14
Utility Water Distribution Pump		
Number	2	
HP, each		20
Capacity, each (gpm)		200

Source: City WPCF Master Plan, reference 1.

PROPOSED MITIGATED NEGATIVE DECLARATION

1. **Name of Project:** City of Hayward Water Pollution Control Facility (WPCF) Improvements Project

2. **Applicant:** City of Hayward Public Works Department

3. **Location and Project Description:** The City's WPCF is located about ½-mile north of Highway 92, near the east shoreline of San Francisco Bay. The Project will modify the facility to a new trickling filter/solids contact process along with process modifications that will enable the plant to consistently meet effluent limitations applicable to East Bay Dischargers Authority discharges, and to improve the level of redundancy available with the major process units. The Project does not provide for any increase in authorized waste discharge rates.

4. **Finding:** The Project Description includes numerous environmental safeguards to address issues associated with the Project. Additionally, the Initial Study identified potentially significant impacts to cultural resources. Mitigation measures will be implemented by the City to reduce or eliminate these potential environmental impacts.

5. **Initial Study and Mitigation Measures:** An Initial Study documenting the reasons to support the finding is attached. Mitigation measures have been identified to address potential impacts listed above and are included in the Initial Study.

A. Ameri

Alex Ameri
Deputy Director of Public Works/Utilities

Oct. 31, 02

Date

Exhibit B

MITIGATION MONITORING AND REPORTING PROGRAM
CITY OF HAYWARD
WATER POLLUTION CONTROL FACILITIES IMPROVEMENTS PROJECT

JANUARY 7, 2003

Potential impact	Mitigation measure	Responsibility	Action	Completion date
Effects on archaeological resources during construction	In the event that any archaeological resources are uncovered during construction activity, there should be no further excavation or disturbance of the site or any nearby area until the find has been evaluated by a qualified archaeologist, and appropriate site-specific mitigation has been identified to protect, preserve, remove or restore the artifacts uncovered.	City of Hayward	Condition contractor's agreement	During construction
Disturbance of human remains during construction	In the event that any human remains are uncovered during construction activity, there should be no further excavation or disturbance of the site or any nearby area until after the Alameda County Coroner has been informed and has determined that no investigation of the cause of death is required or such investigation has occurred and appropriate actions have been taken, and (if the remains are determined to be of Native American origin) the descendants from the deceased Native American(s) have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.	City of Hayward	Condition contractor's agreement	During construction

DRAFT

HAYWARD CITY COUNCIL

RESOLUTION NO. _____

Introduced by Council Member _____

RESOLUTION APPROVING THE MITIGATED NEGATIVE DECLARATION AND MITIGATION MONITORING AND REPORTING PROGRAM AND APPROVING THE WATER POLLUTION CONTROL FACILITIES (WPCF) IMPROVEMENT PROJECT, PROJECT NOS.7514, 7512, 7513, 7515 AND 7651

WHEREAS, in December 2001, the City Council approved the execution of an agreement with Brown and Caldwell Engineering to prepare plans and specifications to construct Phase I Improvements of the Water Pollution Control Facility (WPCF); and

WHEREAS, the Initial Study and Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program has been prepared and processed in conformance with City and California Environmental Quality Act (CEQA) guidelines and reflects the independent judgment of the City of Hayward; and

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Hayward that the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program for the Water Pollution Control Facility Improvements, Phase I Project, Project Nos.7514, 7512, 7513, 7515 and 7651 is hereby approved.

BE IT FURTHER RESOLVED by the City Council of the City of Hayward that the Water Pollution Control Facilities Phase I Project, Project No Nos.7514, 7512, 7513, 7515 and 7651 as defined in the Mitigated Negative Declaration and Mitigation Monitoring and Reporting Program is hereby approved;

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2003

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:_____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

_____
City Attorney of the City of Hayward

DRAFT

HAYWARD CITY COUNCIL

RESOLUTION NO. _____

Introduced by Council Member _____

RESOLUTION AUTHORIZING THE CITY MANAGER TO FILE AN APPLICATION FOR A STATE REVOLVING FUND LOAN TO CONSTRUCT THE WATER POLLUTION CONTROL FACILITY PHASE I IMPROVEMENTS PROJECT, PROJECT NOS. 7512, 7514, 7513, 7515 AND 7651 AND EXECUTE THE LOAN AGREEMENT

BE IT RESOLVED by the City Council of the City of Hayward that the City Manager is hereby authorized and directed to submit and application on behalf of the City of Hayward, a Financial Assistance Application for a loan from the State Water Resources Control Board in an amount not to exceed $33,000,000, in a form approved by the City Attorney.

BE IT FURTHER RESOLVED that the City of Hayward hereby agrees and further does authorize the City Manger to certify that the City has and will comply with all applicable state and federal statutory and regulatory requirements related to any federal and state loan funds received.

BE IT FURTHER RESOLVED that the City Manager is hereby authorized and directed to negotiate and execute loan contract and any amendments or change orders thereto and to certify loan disbursement on behalf of the City of Hayward.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2003

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:_____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

_____
City Attorney of the City of Hayward

DRAFT

HAYWARD CITY COUNCIL

RESOLUTION NO. _____

Introduced by Council Member _____

RESOLUTION OF AGREEMENT TO CONTRIBUTE THE STATE MATCH SHARE FOR THE LOAN FROM THE STATE REVOLVING FUND FOR THE WATER POLLUTION CONTROL FACILITY IMPROVEMENTS, PHASE I PROJECT, PROJECT NOS. 7512, 7514, 7513, 7515 AND 7651

BE IT RESOLVED that the City Council of the City of Hayward hereby agrees to the following in return for a "Local Match Loan" State Revolving Fund (SRF) Loan:

1. To contribute the State match share equal to 16.667 percent of the eligible project costs, in an estimated amount of $5.5 million.

2. To pay an administrative fee of up 0.575 percent of the eligible project cost for the administrative match amount, if requested by the State Water Resources Control Board (SWRCB), prior to the issuance of the local match SRF loan contract, provided that the fee shall be waived by the SWRCB if sufficient monies to fund the administrative match are available from other sources.

3. To establish a state match account for the project, and deposit sufficient funds, as necessary, to make the state match payments to the contractor(s).

4. To provide the SWRCB, Division of Clean Water Programs (Division) a certification with each progress payment request stating that the appropriate state match amount for th requested payment has been paid to the contractor(s).

5. To provide the Division with copies of the cancelled checks or other form of verification acceptable to the State, documenting payment of the state match amount, on a quarterly basis.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2003

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:_____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

_____
City Attorney of the City of Hayward

DRAFT

HAYWARD CITY COUNCIL

RESOLUTION NO. _____

Introduced by Council Member _____

RESOLUTION EXPANDING THE PURPOSE OF THE ANNUAL SEWER SERVICE CHARGE REVENUE TO INCLUDE THE REPAYMENT OF THE CITY OF HAYWARD WATER POLLUTION CONTROL FACILITY IMPROVEMENTS, PHASE I PROJECT, PROJECT NOS. 7512, 7514, 7513, 7515 AND 7651

WHEREAS, the purpose of the sewer service charge is to raise revenue fo the cost of maintenance and operation of the City of Hayward's wastewater treatment and collection facilities; treatment of commercial, industrial, and domestic wastewaters; regulation of industrial wastes; payment of principal and interest on bonds; and capital recovery costs in accordance with Federal and State Revenue Program guidelines.

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Hayward hereby expands the purpose of the sewer service charge revenue to specifically include the repayment of any and all State Revolving Fund loans on the City of Hayward's Water Pollution Control Facility Improvements, Phase I Project, Project Nos. 7512, 7514, 7513, 7515 AND 7651. This dedicated source of revenue shall remain in effect until such loan or loans are fully discharged unless modification or change of such dedication is approved in writing by the State Water Resources Control Board.

IN COUNCIL, HAYWARD, CALIFORNIA _____, 2003

ADOPTED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST:_____
City Clerk of the City of Hayward

APPROVED AS TO FORM:

_____
City Attorney of the City of Hayward